HANDBOOK OF RESEARCH ON

DISCOURSE BEHAVIOR AND DIGITAL COMMUNICATION

Language Structures and Social Interaction

ROTIMI TAIWO

Handbook of Research on Discourse Behavior and Digital Communication:
Language Structures and Social Interaction

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This chapter demonstrates how participants in online networking construct identities, lifestyle and social relations. The author through interview and quantitative pilot survey of Pathfinder, a Greek social networking site, reveals that social networking sites are being used by participants to generate, reinforce and disseminate aspects of their social and personal identities.

Anupam Das investigates the process of social interaction in Orkut - a social networking site for Bengalis in the Diaspora. Combining the methods of extensive online orthography and face-to-face interviews with participants on this network, Das submits that the networkers' frequency of meeting offline influences the dynamics of their interaction and their utterances are consist of positive socioemotional content. He also noted that dyads who exchange more than global average number of utterances also produce more task content than those who exchange less than global average number of utterances per week. He then argues that frequency of face-to-face exchange among the networkers impacts on their expression of positive socioemotional support.

This study examines discursive behavior of mothers in a large British online parenting forum. The authors, through an online survey and discourse analysis of interactions in Mumsnet, reports on the dynamics of power play and relations among the women. They observe that despite the non-existence of official experts on Mumsnet, a hierarchy in expertise is admitted by members on the basis of length of posting, popularity of poster and expertise in some particular areas like breast-feeding and childbirth. The author also discovered that though the participants had mixed reactions on the exact nature of online activities, they generally believe in their supportive nature.

Identifying gender boundaries in the construction of SMS messages is the focus of this chapter. The author examines how the various linguistic short forms typically associated with SMS impacts on gender construction. The author concludes that the discursive act of texting identifies some gender boundaries. For instance, he observes that female texters use more abbreviations, acronyms, compressions to achieve brevity than the male. He also noticed a significant relationship between gender and the usage of standard grammatical structure, punctuation and mother tongue.

Innocent Chiluwa examines how discursive practice in emails is used to construct the Nigerian identity in emails. Chiluwa demonstrates how Nigerians use greetings, address modes and religious sentiments prominently in emails to construct Nigerian identity. The data also demonstrates several instances of Nigerianisms which are typically found in the domesticated form of English popularly used in the country.

This chapter shows how Cameroonians in the Diaspora construct their identity as Anglophones in forums generated from a Cameroonian online newspaper. According to Anchimbe Cameroonians in constructing a distinct identity from their fellow Francophones draw from their colonial history and heritage to emphasize certain traits such as moral uprightness, the ability to stand for their rights. The author concludes by drawing a strong similarity between the strategies for identity construction in online and face-to-face interactions.

This chapter examines the use of multiple modes of video conferencing in workplaces and their roles in constructing meaning. The authors observe that communicating through multiple modes can be technologically demanding and consequently affect usability, potentially necessitating the use of meta-modal language among video-conference participants. The analysis reveals a unique, recurring feature of communication in video conferencing environment, in which participants can cope with technical challenges or address pragmatic moves by specifically naming or making allusions to what their sense of auditory and sight through microphone, speaker, video, whiteboard, or text chat.

Martin Paviour-Smith investigates the discursive practice in a dating website - NormalGay.com. He discussed how some profile writers imagine the community they belong and deploy the rhetorical strategy of the enthymeme to covertly define the identity term normal with respect to heterosexual norms as opposed to the definition against the backdrop of the gay social world. The premise for the definition is connected with the dominant understanding of masculinity in the "real world".

Language mixing is one of the commonest features of bilingual communities in both online and offline. Taiwo discusses the dynamics of this practice by Nigerians in two text-based asynchronous modes – SMS and internet forum. He observes that while the phenomenon is motivated by cultural practices, such as greetings and prayers in SMS, in internet forums, it is largely motivated by an apparent mutual linguistic influence that English and the Nigerian languages have on each other and the unlimited space available expression, which is similar to face –to-face interaction. Language mixing in both media is conscious and deliberate and reflects most prominently the need by participants for identity construction in their discourse.

Najma Al Zidjaly examines the discursive construction of the Islamic religious identity in a synchronous chatroom conversation between a physically-challenged Muslim and other participants from diverse religious backgrounds and nationalities. The author explains how this physically-challenged Muslim constructs two distinct religious identities of a liberal, enlightener and a traditional Muslim, thereby making discourse on Islam less authoritative, but persuasive and open for debate, in the cyberspace context.

Chapter thirteen is a presentation of how gender consciousness is constructed in online discussions by Nigerians. Onadeko noted that online discussions by Nigerians do not reflect any form of sex-consciousness, which is typical of some interactions in offline contexts. He see more participation by women in online activities as a major way of ensuring gender equity in discourse in Nigeria.

Virtual communication in design activity among the team is the focus of chapter fourteen. The authors examine design teams operations and discuss how communication among virtual team members lead to trust-building, collaboration, problem solving and conflict resolution in design. The authors also suggest that training of members of construction design teams should focus more on strategies for interpersonal communication which facilitate collaboration and efficiency in construction design.

Section 2
Linguistic Forms and Structure

Illona Vandergriff explores the growing body of research work on the use of humor in CMC. She focused on studies on interrelated disciplines of applied linguistics and language acquisition and psychology. She observes that while absence non-verbal cues in CMC may encourage humor and play, the may as well obscure them. She concludes that since the nature of humor and play in context of CMC is becoming increasingly complex as the modes encourage creativity and play, researchers have greater challenges in investigating humor in CMC.

Susana Sotillo in this chapter focuses on the predicate-argument structure of frequently used lexical verbs in the text messages of members of five SMS social networks. Using a text analysis tool, lexical verbs were identified, coded for semantic category, and tagged for analysis in a corpus of 31, 288 words. Three research questions are addressed in relation to lexical verb usage, structural simplification, recovery of implied argument, and achievement of communicative intention via mobile telephony. The results reveal that (1) predicate-argument structures determined by certain lexical verbs become simplified in text messages; (2) particular θ-roles assigned to particular arguments become implicit but are easily recovered; and (3) text messaging language constitutes a variety of naturally occurring language. It is possible that such language variations in use may bring about language change over time.

Claudia Silva explores real-time casual chats and shows that the new writing that occurs in chats in general, filled with deviations from standard writing, does not merely imply the creation of a new language but is rather the unconscious recreation of pre-existing features both from early writing systems and learning to spell. She notes that chatters recreate characteristics present in language acquisition and the deviations generally affect the syllable, an intuitive prosodic unit that influences changes in spelling. Chat discourse involves the use of cohesion mechanisms present in other texts, as well as new devices that allow chatters to compensate for the absence of physical clues. She ten concludes that real-time casual chats are a medium in which language is being changed and (re)created.

John Newman and Laura Teddiman investigates the use of first person pronouns in Online diary style of writing. They explore these pronouns in UK and US online diaries, paying particular attention to frequency and collocational relations. They note that contrary to previous corpus-based studies of English genres, which largely observe that first person pronouns have tended to be considered as one larger set without differentiation, the differences between these forms can be very revealing in the way they distinguish online diary style of writing from other genres such as conversation and fiction writing. The findings underline the need to respect inflectional variants of lemmas as objects of study in their own right.

One of the significant implications of digital communication is the receipt of unsolicited emails. Several such mails share common features which characterize what has now come to be known as Advance Fee Fraud (AFF) mails or 419 mails. Christine Ofulue presents a structural analysis of the content of email correspondences for linguistic clues to help detect scams. Using a qualitative approach, she selected several unsolicited emails and analyzed them for linguistic features vis-à-vis standard features of email communication and Standard English (SE). Her findings revealed that the language of AFF emails share common linguistic features in aspects such as address, message, content construction, English as Second Language (ESL) errors, and non-native English features. The findings of the chapter enrich our understanding of language use in digital communication, and equip individuals and investigators with linguistic tools to determine authenticity through digital forensic examination.

In this chapter, Christina Themistocleous examines how the use of ASCII character set had presented a problem for users of languages written in non-Roman scripts in the early days of CMC when they had to represent their languages in online discourse. This author presents a insight into how recent deveopments in technology has helped users of non-Roman alphabets, such as Arabic, Greek , East Asian languages and African languages to manipulate orthography in order to present their languages in online contexts.

Yasemin Kirkgoz discusses the discourse features of emails used in Turkey by English native speakers and Turkish in an international business context. The author's analysis of functional categories suggests that messages are used to disseminate information for a variety of work-related purposes to inform, to request, to direct, and to praise, while that of style reveals that messages contain various features analogous to spoken discourse. At the level of register, messages are found to display various levels of formality. The chapter concludes with a discussion of the findings and suggestions that the future research might take.

Akinmade Akande and Olayiwola Akinwale investigate the linguistic strategies used by students in Nigeria in the composition of SMS. The authors focus on spelling practices and report that phonetic spelling consitutes majority of the short forms. They identify three types of phonetic spellings, namely: purely phonetic spellings, letter homophones and number homophones. In the light of the spread in use of SMS lingo, the authors advocate the standardization and teaching of SMS language in Nigerian schools.

Arlette Dumittan, analyzes representative webzines concerned with the non-mainstream music style of heavy metal. She observes that the trends in webzine lean in the direction of personalization and community-building features. She also discusses the influence of digital hypertext structures as well as the alternative text producer and recipient roles which are directly affected by the inherent interactivity of webzines.

Foluke Unuabonah analyses the thematic organisation of the instruction to authors' section of selected online academic scientific journals' sites. Using fifteen scientific journals from different fields in the sciences and the theoretical framework of Systemic Functional Linguistics, the author's analyisis shows that the marked theme had a higher occurrence than the unmarked ones. The marked themes were realised by adverbials and grammatical subjects. The unmarked themes were realised by subjects and predicates. Simple themes had a higher occurrence than multiple themes while interpersonal themes had more frequency than textual themes. There were also a high occurrence of the given-new information structure. The derived theme pattern was mostly used while the split-theme pattern had the least occurrence. The describes how these results show the ways journal editors made use of the different aspects of information structure to organise their message logically and coherently.

This chapter extends recent attempts at analyzing and comprehending gender differences in emails with respect to cooperation and politeness in the Indian business scenario. The authors study four hundred and ninety four emails - two hundred and fifty emails written by men and two hundred and forty four by women. Their results revealed that specific forms of politeness will result in cooperation among team members/coworkers in email communication; adherence to politeness maxims is higher in women than in men; specific examples of violations of politeness maxims are higher in men than in women; adherence to politeness maxims in clusters is not gender specific but is contingent on the needs of the situation or the organization; and in directives the variations in use of politeness maxims across genders is the highest.

Francisco Yus analyzes from cognitive pragmatics point of view and relevance theory approach how on-line participants maximize their search for optimally relevant interpretive outcomes. The author presents a relevance grid which shows that there are many possible combinations when measuring the relevance of content on web pages and these hing on mental effort required and quality of resulting relevance. The author stressses the fact that predictions of web pages designers on users' needs and relevance-seeking actions when surfing the web can never be fully accurate given the vast variability of cognitive environments and levels of relevance satisfaction that can arise among users. The web designers can however predict how types of information and presentation will probably yield the expected results in terms of usability and loyalty to the web page in the future. The author demonstrates how the analysis yields interesting implications on how web pages should be designed and on web usability in general.

Moji Olateju and Olubunmi Adeleke discuss the ways readers' inferences help their comprehension of emails through their interactions with the textual and contextual elements of the text. The authors describe how code-switching aids inferencing in language contact environments like Nigeria since it signals the sociolinguistic background information on the context of discourse. They conclude by discussing the implications of the spread in the use emails for teaching and acquisition of materials for instructions in communication strategies

Adrian Tien in this chapter investigates typical, everyday Chinese interaction online and examines the semantic, pragmatic discursive, contextual and lexical meanings meanings that arise from this form of communication. The author used a sample set of data from Chinese online resources found in Singa-

levels of signification in mobile phone directories in order to provide maximal benefit to those who can only read non-linguistic signs.

Anders Kofod-Petersen and Rebekah Wegenar investigate the use of iconic signs within a location-aware social network service. They observe that despite the fact that icons are said to have generally understood meanings attached to them, their meanings can sometimes be fluid and open to variation in interpretation. The authors use the framework of Systemic Functional Linguistics to present a better understanding of how social networkers interact, using location information. The authors also suggest that this understanding will provide designers with more insights to design systems that can be utilised maximally to the benefits of online interactants.

Oladele Balogun presents a critical view of digital communication in Nigeria. He underscores the linguistic and social challenges that accompany the use of these media in the country. He questions the adoption of the philosophical approach of pragmatism to digital communication in the country and asserts that the un-systematized and arbitrary abbreviation of words and expressions in digital communication, which is generally common among SMS users portends negative effects oncommunicative performance. The author then proposes Russell's theory of description which he believes can aid linguistic meaningfulness in digital communication.

Tracy LeBlanc discusses how leet speech communities are built in the virtual space. Using Culpeper's Impoliteness model, she addresses the strategies employed by participants in online virtual discourse to create, and sustain a sense of space and identity and strengthen the community. A strong aspect of these strategies is the ability of interlocutors to acquire communicative competence in leet speak, which enables posters to maintain shared interest in the venture of building and maintaining online identity.

Pillar Blitvich, an associate professor of Linguistics discusses deinviduation and impoliteness and how they relate in online environment. She carried out a qualitative and quantitative study of video clips posted on YouTube related to the 2008 US primaries and presidential elections. She argues that polarization can be related to an increase in the number of positive impoliteness strategies used. She notes that by creating a strong sense of us versus them, impoliteness reinforces the out-in group division, intensifying in-group cohesiveness by making the attributes associated with the out-group undesirable. She also raises vital questions regarding the applicability of current theories of im-politeness to the study of polyloguic, intergroup communication as most of their tenets were developed to tackle dyadic, interpersonal communication.

Funmi Olúbọ̀dé-Sàwẹ̀ in this chapter discusses the modalities for making indigenous African languages relevant for digital communication. She presents a critique of an effort made in finding relevance for the major Nigerian languages in a brand of Nokia phone. She observes that terminology presentation using the strategies of Terminologization, composition and translingual borrowing which have been previously used are inadequate. She then proposes further refinement in subsequent terminology projects which will aim at the possibility of developing one-key symbols to represent the distinctive graphological symbols of indigenous African languages.

Section 4
Discursive Behavior in Virtual Learning

Boyd Davis, Mary Smith and Shu Chiao present a review of discourse in three sets of data drawn from online forums for nursing, applied linguistics and nursing assistant courses. They discuss how far online classroom participants' writings reflect critical thinking skills, fluency improvement and enhanced professionalism in teacher-created prompts. Their findings reveal that students use academic and technical terminology when engaged in extemporaneous discussions of experience. Enteries of the students which attract attention and replies from other students were also found to be written at a high level of critical thinking, measured both for group and for individual by two prominent models, SOLO and Critical Presence Theory.

Amelia Cava, study is a corpus-based work on lexico-grammatical features of research processed language. Drawing corpus from six international journals, the author used computer-based methodology – 'concgramming' to identify the phraseological profile of the texts. She asserts that this methodological approach can be employed by language learners and teachers to raise awareness of the importance of the phraseological tendency in language and that relatively simple developments in the currently available technology can assist teachers and learners in this important area of language learning and teaching and supports this proposal by discussing replicable learning and teaching activities which enable learners and teachers to raise their awareness of patterns of phraseology.

Taiwo Soneye explores how Oral English pedagogy in Nigeria can be effectively practiced in the context of CMC and digital communication. She did a survey, which reveals that internet browsing and electronic dictionary sourcing on Oral English by Nigerian students is having profound influence on their learning. They tend to reflect the American spelling patterns, which they learnt mostly through internet sources in their language performance. In the light of the recent developments, which make it difficult for learners to adhere to the traditional classroom instructions, she therefore suggests an integrative approach to teaching and assessment of learners.

Chaka Chaka traces how CMC evolved into social participation technologies (SPTs). He argues that that most CMC technologies have evolved into SPTs either as convergent applications or as stand-alone complementary applications. The chapter elaborates on the emergence of new genres, which have been changing discourses, new literacies and online socialised learning. The chapter also emphasizes the importance of online socialised learning as leverages for digital lifestyle, friendships, interests and other aspects of relational capital.

Kehinde Ayoola presents an appraisal of the effectiveness of a computer-assisted program for professional development of English teachers and teacher-trainers in Nigeria. He examines the extent of the success of this computer-based distance learning program and observes that excessive load, absence of internet connectivity, low level of computer literacy, poor power supply and lack of commitment on the parts of both the trainees and the institutions they worked for, the program was not able to achieve its set objectives. The author suggests some hints on how these shortcomings can be overcome in order to enhance success of such future computer-assisted programs for professional development.

Caroline Ho describes Singaporean teenagers' engagement in an immersive virtual environment through role play in the Second Life virtual world. The author identifies discourse strategies and features realized in students' enactments of specific roles assigned and highlights how students constructed opinions and exchanged perspectives on issues raised in the context of discussing euthanasia. She established evidence of varying students' recognition of religious and moral or ethical issues related to euthanasia with references to various beliefs and assumptions held by the different participants. She also identifies differences in the extent to which students were open to other interpretations in offering propositions conveyed as contingent and as one out of a range of possible viewpoints. In order to enhance overall power argumentation process, the author suggests sensitization of students and raising of their level of awareness to the linguistic resources needed for impacting argumentation in virtual communication.

Titi Fola-Adebayo evaluates undergraduate students' attitude to a MOODLE teaching and learning resource in the context of EAP in a university of technology in Nigeria. She reports that despite students' encounter with some problems while using the program, they were enthusiastic about the novel experience and their attitude to it was positive. The author also notes that there was no significant difference in the attitude of male and female to the program. Finally she proposed recommendations that will make students realize maximum benefits from the program the future.

Rahma Al-Mahrooqi and Victoria Tuzlukova investigate the technological, linguistic and socio-cultural issues pertaining to the use of the internet in the EFL classroom. Specifically, they describe how Omani students studying at Sultan Qaboos University (SQU) view their interaction with the internet while responding to it as a means of communication and as a source of authentic materials and literatures written in English. The chapter provides insights into the socio-cultural views of these students to online communication. It also presents the challenges facing those who intend to use the internet in instruction.

Olusola Are investigates the attitude of Nigerians who have to use the Internet for learning and other related activities. He observes that despite that majority of the respondents find the Internet useful for reading and learning, the low competence level of people and the non-availability or irregular availability makes them to view use internet as a technically difficult task. He traces some of the challenges people face in their attempt to use web-based instructions to low level of preparedness for information literacy and suggests the incorporation of information literacy into the curriculum right from the primary stage of education to the tertiary level.

Alison Nagel and Kai Woodfin, both of the University of Freiburg present an evaluation of a blended learning course in writing instruction used at the university for undergraduate students of English. They also observe that students‘ feedback and evaluation of the course was generally positive. The authors also outline the implications of students‘ attitudes for future integration of blended learning within the instructional program.

Artemiro Ramirez Jnr and three other scholars examine bullying messages and related behaviors transmitted through electronic technologies. They propose a message-based approach to understanding the factors that influence the enactment of and outcomes linked to cyberbullying and its associated messages. They conclude by offering potential solutions and recommendations to problems associated with cyberbullying.

Victoria Tuzlukova and Irina Rozina discuss virtual research community as a socio-cultural phenomenon. The authors argue that the virtual research communities bring together perspectives from macro and micro-socio-cultural influences, traditional culture-based characters of communication of academics and researchers and experiences that are historically rooted in local history or way of development. also underscore its importance for institutional and individual/personal expressions. They hope the institutionalization and development of Russian Communication Association will help to explore the controversies and problems of local virtual research communities and also assist in better understanding of successful implementation of international patters of virtual communities.

Christina Howell-Richardson looks at how postgraduate students conveyed their meanings and how they managed their group interaction in text-based asynchronous online conferencing. She presents the development and use of an analytic framework, based on Conversational Analysis and neo-Gricean theories of conversational meaning and used the framework to examine, code and describe the discourse behaviors and strategies these postgraduate students use when they are engaged in co-operative learning tasks in an asynchronous text-based, online conferencing context. Her findings reveal that participants systematically pattern their messages and use specific discourse strategies to manage their interactions.

David Morand, a professor of management presents a conceptual paper that shows how politeness provides a robust theoretical and empirical framework that can be usefully applied to the study of relational ties in computer-medicated-communication. He discusses how recognition of the central role of face-work in social interchange can enhance our understanding of why and where emotion-work might occur in CMC, how such emotion-work (in the form of politeness) can be reliably observed and quantitatively measured at a linguistic level of analysis.

Guo-Ming and Khai Zhang discuss the role of the new media as a major force for accelerating development in the globalised world. They observe how the rapid transformation of human society due to the impact of the convergence of new media and globalization directly influences the construction and development of cultural identity. The author unravels the intricate relationship between the new media, globalization and cultural identity through the process of definition, interpretation, and critical analysis.

Eleonora Brivio, Frances Ibarra and Carlo Galimberti present an integrated approach to the study of computer-mediated interactions. Combining three theoretical realms (objects, subjects, processes), three levels of analysis (local mediated interaction, everyday situation, social context) and two methodologies of data production (qualitative and quantitative), the chapter proposes an integrated approach to online interactions. An example of this is shown by discussing a research on Self Presentation in blogs.

Erika Darics aproaches discusses relational works in Instant Messaging (IM). She approaches this through an interactional sociolinguistic approach. analysis which focuses on non-task oriented talk and its function in forming and establishing communication norms in the team, as well as micro-level phenomena, such as hesitation, backchannel signals and emoticons. The conclusions of this research suggest that the linguistic strategies used for substituting audio-visual signals are strategically used in discursive functions and have an important role in relational work.

Gabriele Bechtel presents a discussion of topics that defy debates in online discussion. Using a well established German-American discussion board and center on Moore's film Bowling for Columbine, she offers insights affecting both theory and practice of participatory online communication. Her arguments demonstrates the factors that determine, influence, and limit that way participants interact in participatory online communication.

Elke Hentschel's paper discusses how the new media makes it possible to watch the emergence of new rules at the same time as they are being formed, and to observe current processes of linguistic reanalysis by the language users. She argues that CMC offers a tremendous new opportunity to observe language awareness and language change. Drawing examples from phonetics, orthography, and morphology of Chinese, French, German, and Serbian she illustrates how new rules emerge in the ongoing processes of linguistic reanalysis by the language users.

Foreword

The digital revolution allows us to exchange vast amounts of information at incredible speed with any number of people at any place on the globe. These fascinating technological innovations have undoubtedly left their imprint on communicative behaviour around the world. New types of discourse and new communicative practices have arisen (along with malpractices, like cyberbullying). Applying, for example, the Jakobsonian communication model to private communication, the overall impression one gets is that it is especially the expressive and the phatic functions of language which have come to the fore in the digital age. An increasing number of people simply love to share their views, thoughts, experiences and feelings with others, whether they know the addressees or not, and whether the addressees want to know them or not. This apparently deep-rooted human urge to communicate, to let fellow human beings know of one's existence is something underlying much private digital communication these days. Computer-mediated communication (short: CMC) is uniquely suited for this purpose since it offers at the same time anonymity and the opportunity for sharing privacy (whether real or faked).

Digital communication thus offers a rich field of study for all disciplines studying human communication, including sociology, anthropology, psychology, communication studies and, above all, linguistics. Relevant questions raised by the professional linguist relate to communication, variation, language structure and, inevitably, language evolution. What, for example, is the effect of the various digital tools on communication? How do established discourse and social behaviours adapt to the new media (like beginning or ending a relationship via SMS), and which new genres or discourse behaviours develop? To what extent are these new CMC genres and innovative discursive practices universal, i.e. purely the result of responding to the medium-inherent possibilities and constraints, or influenced, maybe even significantly shaped, by the local discursive practices in different continents, cultures and societies? This is an issue of universal vs. glocalized CMC, as it were. What about special constraints of CMC at the workplace? Do different social groups make different use of CMC -- what about age, what about gender (e.g. gender-specific discourse and politeness strategies)? In which ways are the structural properties of languages affected by digital communication? What about different CMC styles and the increasingly diminishing gap between (spontaneous) spoken and (highly informal) written communication? On a more specific note, the interplay between economy and iconicity is worth exploring in CMC. These two are well-known as competing forces shaping language(s) in language typology and historical linguistics. In CMC, however, iconicity is not only an important means of expressiveness (think, for example, of emoticons), but it is clearly and more importantly at the service of economy – with economy being used in the double sense of being brief and, as a welcome side effect, potentially cheap (thus the often manipulated orthographies in texting or chat discourse).

The above questions concerning the effect of CMC on language structures and potential language changes relate to any language, of course, but they relate to English, in particular. There is no denying that digital communication has significantly strengthened the role of English as the global lingua franca. For specialists in the linguistics of English it is thus fascinating to explore (a) the ways in which English is put at the service of the various digital genres in different parts of the world, and (b) the extent to which these new English-medium discursive practices are affecting the structure of the English language (at least in the guise of International Standard English or English as a Lingua Franca) and may result in language change. Also interesting to explore it is how different varieties of English (stylistic, social, ethnic, regional) are exploited for the purposes of self-styling and identity construction.

The present volume offers insights into almost all of the above issues and others not even mentioned. Having consulted this Handbook, its readers will be in a much better position to judge the various dimensions of how, and to what extent, the digital revolution has affected human communication, and to what extent the revolution of communicative practices has brought (or may in due course bring) in its wake also major new steps in the evolution of language, especially of English. Moreover, and this is another asset of this volume, it lays at the feet of its readers the cultural richness and discursive diversity of the global CMC communities on five continents, for once not neglecting what is going on in developing parts of the world. It is obvious that, with such a vastly dynamic and fast moving target as CMC, this Handbook can offer no more than a snapshot of the current world of digital communication and possible, or even likely, developments in the near future, as for example the evolution of new genres such as webzines, the increasing importance of social participation technologies, location-aware social network services, or the virtual classroom of the present and future. But this snapshot is truly impressive and will no doubt be appreciated by a broad readership inside and outside the field of linguistics.

For professional linguists there is another bonus: they are not only interested in CMC affecting communicative behaviour and language structure, but also in the question what the theoretical and methodological toolkit of their discipline can bring to bear on the analysis of CMC, in general, and all the CMC-related issues raised above, in particular. In this respect, too, the present volume is rich and highly instructive. The theoretical models and methods employed for the various aspects of digital communication worldwide include more narrowly linguistic ones like Systemic Functional Linguistics (Halliday), Natural Semantic Metalanguage (Wieržbicka), Critical Discourse Analysis, and a host of pragmatic theories and methods relevant for analyzing conversational behaviour, as well as frameworks reaching beyond core linguistics into discourse studies, humour research, sociology, anthropology, and ethnography.

Finally then, if the author of this foreword was granted a humble wish, then he'd already ask for a second edition of this Handbook in 10 or 20 years time. It will be most interesting to see what will happen in one or more decades, once the currently still young medium (young relating to both to the age of the medium and the bulk of its most extensive users) has become an established medium used regularly and frequently by all age groups. Will communicative habits in CMC change? Will age be a potential factor in this? And what about technological advances and the no doubt fast-growing flatrate offers by mobile companies and internet providers? Alone or in combination, these two factors can safely be expected to do away with the money and space constraints which we are operating under now and which influence especially the SMS and CMC behaviour of young users (pupils, university students) and people with very low incomes. Take texting: if there is no longer any need in being brief because texting devices and mobile screens have become far more comfortable, then why continue being so extremely economic and use icons, abbreviations, acronyms, or cryptic letter/number combinations (like b4n 'bye for now' or afaik 'as far as I know')? Maybe everything we immediately associate with texting today will be no more than a passing fashion, a vague memory for the adolescents of the year 2030—just as telephones with a dial and a cord, or personal computers with disk-drives and floppy disks for adolescents now.

But first we should take stock of the rich diversity of digital communication and discursive practices as they have developed around the globe in the nascent 21st century and enjoy the chapters in this most timely Handbook.

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Bernd Kortmann *is Full Professor of English Language and Linguistics at the University of Freiburg, Germany. His publications include four monographs, five edited volumes, a two-volume handbook-cum-CD-ROM on the phonology and morphosyntax of the varieties of English around the world (2004), and about 80 articles and reviews in journals and collective volumes. His research interests include semantics, semantic change, grammaticalization, typology, history of linguistics, and English grammar. His main research interest over the last decade has been the grammar of non-standard varieties of English around the world, especially from a typological perspective. As a result of his research efforts, three volumes on syntactic variation in English and Germanic dialects have been published in 2004 and 2005, among them the multimedia reference work A Handbook of Varieties of English (published in paperback in 2008). Since 1996 he has been the editor of the Mouton de Gruyter series Topics in English Linguistics (together with Elizabeth Traugott, Prof. em. at Stanford University). From 2007 until 2011 he is a member of the editorial board of the journal English Language and Linguistics (Cambridge University Press). He is a member of the Scientific Boards of European Dialect Syntax (Amsterdam, 2007-2010) and Finnish Dialect Syntax (Helsinki, 2008-2011). At the University of Freiburg, Bernd Kortmann is the director of the graduate programme Master of European Linguistics, Chairman of the Board of the Language Teaching Centre, and member of the Board of the Hermann-Paul Centre of Linguistics.*

Preface

Digital communication in the last decade has attracted a growing body of researchers, especially those who study human social interaction and behavior, such as linguists, sociologists, psychologists, and communication and information science expert. Scholarly perspectives on digital communication have revealed how the Internet and modern telecommunications have been shaping human behavior in real time synchronous and asynchronous modes.

The Handbook of Research on Discourse Behavior and Digital Communication: language Structures and Social Interaction is a compendium of 56 scholarly chapters on discourse behavior in digital communication. The chapters were written by 82 top researchers from 48 institutions spread across America, Europe, Africa, Asia and the Oceanic. These chapters cover different aspects of computer-mediated communication, such as electronic mail, instant message, chat, discussion forum, blog, video conferencing, You Tube, web-based learning and SMS, as well as aspects of behavior typically associated with online discourse like flaming, scamming, trolling, cyberbullying, language mixing, repelling and creativity. Approaches of these scholars vary as well as their backgrounds. However, the approaches blend in their descriptions of the different linguistic behavior and forms used in socialising through digital discourse. Some of the aspects of discourse behavior covered in the book are identity construction, politeness and face works, rhetorical strategies humor and language play, gender, power and ideology construction, and so forth.

This book is divided into five sections, each covering thematically-related issues. The first section contains fourteen chapters that address discourse behavior and social interaction. These chapters describe discourse behavior in mobile telephony, email, social networking, parenting websites, SMS, discussion forum, video conferencing and dating website.

In Chapter One, Clare Lloyd and Patricia Gillard examine the emerging discourse practice that surround the use of mobile phones as a lifestyle accessory in Australia. Using the perspective and methods of discourse analysis, she demonstrates how people form and express their personal identities through the kinds of phones they chose to use, their wallpaper and their ring tones. These features of mobile phone use have been so socially constructed that they contribute to the building of virile mobile phone cultures in the society.

Charley Rowe in the second chapter investigates how users construct transactional and relations emails in selected workplaces in Hong Kong. The author shows how workers in the selected organizations use email as a record keeping device, a time saver as well as an outlet for play and humor within the organizations. Despite its being individual-based, the workplace cultures and the community of practice plays a prominent role in the construction of workplace emails. Workplace emails are therefore affected by a range of personal, interpersonal and group discourse norms in the organizations where they are used.

Chapter three demonstrates how participants in online networking construct identities, lifestyle and social relations. The author, Mariza Georgealou, through interview and quantitative pilot survey of Pathfinder, a Greek social networking site, reveals that social networking sites are being used by participants to generate, reinforce and disseminate aspects of their social and personal identities.

Anupam Das investigates the process of social interaction in Orkut - a social networking site for Bengalis in the Diaspora. Combining the methods of extensive online orthography and face-to-face interviews with participants on this network, Das submits that the networkers' frequency of meeting offline influences the dynamics of their interaction and their utterances are consist of positive socioemotional content. He also noted that dyads who exchange more than global average number of utterances also produce more task content than those who exchange less than global average number of utterances per week. He then argues that frequency of face-to-face exchange among the networkers impacts on their expression of positive socioemotional support.

Sarah Pedersen the Chair of the UK Association for Publishing Education and Janet Smithson, a research fellow examine discursive behavior of mothers in a large British online parenting forum. The authors, through an online survey and discourse analysis of interactions in Mumsnet, report on the dynamics of power play and relations among the women. They observe that despite the non-existence of official experts on Mumsnet, a hierarchy in expertise is admitted by members on the basis of length of posting, popularity of poster and expertise in some particular areas like breast-feeding and childbirth. The author also discovered that though the participants had mixed reactions on the exact nature of online activities, they generally believe in their supportive nature.

Muhammad Shaban Rafi in an applied linguistic study shows how the various linguistic short forms typically associated with SMS impacts on gender construction. The author concludes that the discursive act of texting identifies some gender boundaries. For instance, he observes that female texters use more abbreviations, acronyms, compressions to achieve brevity than the male. He also noticed a significant relationship between gender and the usage of standard grammatical structure, punctuation and mother tongue.

In chapter seven, Innocent Chiluwa examines how discursive practice in emails is used to construct the Nigerian identity in emails. Chiluwa demonstrates how Nigerians use greetings, address modes and religious sentiments prominently in emails to construct Nigerian identity. The data also demonstrates several instances of Nigerianisms which are typically found in the domesticated form of English popularly used in the country.

Eric Anchimbe describes how Cameroonians in the Diaspora construct their identity as Anglophones in forums generated from a Cameroonian online newspaper. According to Anchimbe Cameroonians in constructing a distinct identity from their fellow Francophones draw from their colonial history and heritage to emphasize certain traits such as moral uprightness, the ability to stand for their rights. The author concludes by drawing a strong similarity between the strategies for identity construction in online and face-to-face interactions.

In chapter nine Kristy Fagersten, Elim Holmsten and Una Cunningham examine the use of multiple modes of video conferencing in workplaces and their roles in constructing meaning. They observe that communicating through multiple modes can be technologically demanding and consequently affect usability, potentially necessitating the use of meta-modal language among video-conference participants. The analysis reveals a unique, recurring feature of communication in video conferencing environment, in which participants can cope with technical challenges or address pragmatic moves by specifically naming or making allusions to what their sense of auditory and sight through microphone, speaker, video, whiteboard, or text chat.

Martin Paviour-Smith investigates the discursive practice in a dating website - NormalGay.com. He discussed how some profile writers imagine the community they belong and deploy the rhetorical strategy of the enthymeme to covertly define the identity term normal with respect to heterosexual norms as opposed to the definition against the backdrop of the gay social world. The premise for the definition is connected with the dominant understanding of masculinity in the "real world".

Language mixing is one of the commonest features of bilingual communities in both online and offline. Rotimi Taiwo in the eleventh chapter discusses the dynamics of this practice by Nigerians in two text-based asynchronous modes – SMS and internet forum. He observes that while the phenomenon is motivated by cultural practices, such as greetings and prayers in SMS, in internet forums, it is largely motivated by an apparent mutual linguistic influence that English and the Nigerian languages have on each other and the unlimited space available expression, which is similar to face –to-face interaction. Language mixing in both media is conscious and deliberate and reflects most prominently the need by participants for identity construction in their discourse.

Najma Al Zidjaly examines the discursive construction of the Islamic religious identity in a synchronous chatroom conversation between a physically-challenged Muslim and other participants from diverse religious backgrounds and nationalities. The author explains how this physically-challenged Muslim constructs two distinct religious identities of a liberal, enlightener and a traditional Muslim, thereby making discourse on Islam less authoritative, but persuasive and open for debate, in the cyberspace context.

Chapter thirteen is a presentation of how gender consciousness is constructed in online discussions by Nigerians. In the chapter, Tunde Onadeko noted that online discussions by Nigerians do not reflect any form of sex-consciousness, which is typical of some interactions in offline contexts. He see more participation by women in online activities as a major way of ensuring gender equity in discourse in Nigeria.

Virtual communication in design activity among the team is the focus of chapter fourteen. The authors examine design teams operations and discuss how communication among virtual team members leads to trust-building, collaboration, problem solving and conflict resolution in design. The authors also suggest that training of members of construction design teams should focus more on strategies for interpersonal communication which facilitate collaboration and efficiency in construction design.

Section 2 is a collection of ten chapters that describe formal and structural language use in online discourse. These include predicator-argument structure of frequently used lexical verbs, prosodies and spelling forms, first person pronoun usage, orthographic forms, stylistic features and information structure.

In the Chapter fifteen, Illona Vandergriff, a professor of German explores the growing body of research work on the use of humor in CMC. She focused on studies on interrelated disciplines of applied linguistics and language acquisition and psychology. She observes that while absence non-verbal cues in CMC may encourage humor and play, the may as well obscure them. She concludes that since the nature of humor and play in context of CMC is becoming increasingly complex as the modes encourage creativity and play, researchers have greater challenges in investigating humor in CMC.

Susana Sotillo in chapter sixteen analyzed the predicate-argument structure of frequently used lexical verbs in the text messages and observes that activity verbs were most frequently used in all five SMS networks analyzed, followed closely by mental verbs and communication verbs. She also observed that despite violations of the criterion in the text messages analyzed the recipient of the text message or addressee promptly recovers the implicit thematic roles assigned to the verb's underlying arguments.

Therefore, the senders' pragmatic strategies that result from constraining message meaning to 160 characters are successful with the addressee's ability to accurately interpret the implicit thematic roles and meanings. She concluded by asserting that shortening devices used in SMS may cause potential language change over time, and this may in turn affect the learning of standard varieties of a natural language, especially among second- and foreign-language learners.

Claudia Silva looks at the language of real time chats and asserts that the general deviations form the standard norms observed in the language do not necessarily indicate the evolution of new linguistic forms, but the unconscious recreation of pre-existing features both from early writing systems and learning to spell. She therefore recommends that these deviations should be studied in order to have an access to intuitive linguistic knowledge.

John Newman, a professor of Linguistics and Laura Teddiman in chapter eighteen describe the less well understood style of writing online diaries. They focus on the role of first person pronouns in that style in selected UK and US. They found that contrary to earlier presentations of first person pronouns as one large set without differentiation, these forms differ and can be used as the basis for distinguishing online diary style from other genres like literary and conversational genres. Findings from this study can help linguists to generate a more complete description of language use across genres, and in turn, increase our understanding of language use in a digital communicative world.

Christine Ofulue presents a structural analysis of the language of Advance Fee Fraud mails or scam mails, popularly known as 419. She observes that the language of these spam mails have similar linguistic features in terms of their address, message, content construction, domesticated English features and common ESL errors. The author submits that a forensic analysis like this will assist in developing more effective anti-spam guards.

In chapter twenty, Christina Themistocleous examines how the use of ASCII character set had presented a problem for users of languages written in non-Roman scripts in the early days of CMC when they had to represent their languages in online discourse. This author presents a insight into how recent developments in technology has helped users of non-Roman alphabets, such as Arabic, Greek, East Asian languages and African languages to manipulate orthography in order to present their languages in online contexts.

Yasemin Kirkgoz discusses the discourse features of emails used in Turkey by English native speakers and Turkish in an international business context. The author's analysis of the functions of email reveals that they are used to disseminate information for a variety of work-related purposes to inform, to request, to direct, and to praise. In addition, stylistically, emails reflect features of spoken discourse and the level of formality varies. The author underscores the importance of email in international business English and suggests the incorporation of strategies for email construction in the curriculum of Business English.

Akinmade Akande and Olayiwola Akinwale investigate the linguistic strategies used by students in Nigeria in the composition of SMS. The authors focus on spelling practices and report that phonetic spelling consitute majority of the short forms. They identify three types of phonetic spellings, namely: purely phonetic spellings, letter homophones and number homophones. In the light of the spread in use of SMS lingo, the authors advocate the standardization and teaching of SMS language in Nigerian schools.

Arlette Dumittan, a researcher on online journalism presents a text linguistic study of how the Internet has affected journalistc publications, looking at the fairly recent webzine genre. Webzine is a hybrid activity combining pure journalistic practice with the practice of online communication. Arlette observes that the trends in webzine lean in the direction of personalization and community-building features. Despite the ample opportunities motivated readers to respond to published articles and take part in shaping content, hypertext does not vanquish the journalist's influence on the reader since it remains the (hyper) text producer who sets the links and therewith gives the reader the array of opportunities to choose from. Linguistic research challenges exist in the area of the need of a fool-proof methodology for saving digital hypertext content for analysis.

In the last chapter section two, Foluke Unuabonah presents an analysis of the thematic organization of instruction to authors' sections of selected online academic journals. The analysis of thematic structure shows that marked theme realized by adverbials and grammatical subjects were frequently used and most of the journals favor the use of simple theme. The most popular thematic progression patterns were the derived and constant theme patterns. The use of these structural patterns and information organization helps gives texture to the presentation of instructions to prospective authors.

The third section contains twelve chapters that approach the study of discourse from the perspectives of semantics and pragmatics. The chapters focus on themes such as politeness, relevance, inference, beliefs, as well as other aspects of lexical, contextual and visual meaning of different kinds of computer-mediated discourse.

In chapter twenty five, Asha Kaul and Vaibhvi Kulkarni examine how gender and politeness are constructed in emails in Indian business contexts. The authors report that while emails analyzed were task oriented, they varied in their use of politeness indicators and markers. Findings show that adherence to politeness maxims is higher in women than men. Also, while men attempted bonding through the use of Approbation, women did so by making "inane talk." This is closely linked with the cultural practice in India, where men typically play the role of the head in a patriarchic society, praising and motivating, and women indulge more in 'relationship building.'

Francisco Yus analyzes from cognitive pragmatics point of view and relevance theory approach how online participants maximize their search for optimally relevant interpretive outcomes. The author presents a relevance grid which shows that there are many possible combinations when measuring the relevance of content on web pages and these rely on mental effort required and quality of resulting relevance. The author stresses that fact that predictions of web pages designers on users' needs and relevance-seeking actions when surfing the web can never be fully accurate given the vast variability of cognitive environments and levels of relevance satisfaction that can arise among users. The web designers can however predict how types of information and presentation will probably yield the expected results in terms of usability and loyalty to the web page in the future.

Moji Olateju and Olubunmi Adeleke examine how readers' inferences aid their comprehension of emails. Readers infer by interacting with the textual and contextual elements of the text. This interaction helps them to adequately supply the missing information. The authors assert that code-switching aids in language contact environments like Nigeria, the base of the study, aids inferencing, since it signals the sociolinguistic background information on the context of discourse. The authors also stress the implications of the spread in the use emails for teaching and acquisition of materials for instructions in communication strategies.

Adrian Tien in chapter twenty eight investigates the semantics of Chinese online interaction. The author's findings reveal that sentences were found to be not only short but also often had grammatical mistakes and appeared fragmented or incomplete. Despite this, the linguistic meanings are often concise and logically connected. Chinese CMC shows some departure from conventional socio-cultural norms in contemporary Chinese language and culture. This chapter represents an important step in the direction of using a radical semantic approach to analyzing natural CMC data.

Drawing on insights from contextual beliefs, collaborative theory and implicature, Akin Odebunmi and Moses Alo investigate beliefs that Nigerian academics work with when engaged in sending SMS. The authors reveal through their findings that language-based beliefs and subject matter-based beliefs were exploited. Messages based on research and academic activities exhibit a wide variety of short hands, context-driven indices of assumptions and flouts of quantity and manner maxims. In addition, the high level of assumptions made, aided by various linguistic tools may be an indication of an in-group practice.

Hadina Habil investigates patterns of email communication in a public higher education institution in Malaysia. The style in terms of the salutations, openings and closing in the emails vary according to the context, the people involved and according to the subject matter. Most of the emails were used to fulfil the speech act function of Representative. While most of the mails were written in English, the few written in Bahasa Malaysia were announcements. The author also identifies the incursion of socio-cultural factors such as religious practices and beliefs, as some emails writers prefer the use of Arabic salutation and closing as a means of constructing their identities as Muslims.

Ibrahim Olaosun in chapter thirty one argues that some of the visual codes used in mobile phone directories are not necessarily new, rather, they draw from familiar resources, which are appropriated into the novel digital space to give them semantic value. He also proposes the exploration of both the primary and secondary levels of signification in mobile phone directories in order to provide maximal benefit to those who can only read non-linguistic signs.

Chapter thirty two is an investigation of the use of three icons within a location-aware social network service. Using the Systemic Functional Linguistic approach, Anders Kofod-Petersen and Rebekah Wegener present a better understanding of how social networkers interact, using location information. The author suggests that this understanding will provide designers with more insights to design systems that can be utilized maximally to the benefits of online interactants.

Oladele Balogun looks at how communication in the digital media has been transforming human understanding and use of language The author argues that the advent of digital communication in Nigeria has unconsciously brought more linguistic and social challenges to the psyche of users of these media in the country. He questions the adoption of the philosophical approach of pragmatism to digital communication in the country and asserts that the unsystematized and arbitrary abbreviation of words and expressions in digital communication, which is becoming common among SMS users portend negative effects on communicative performance. The author then proposes Russell's theory of description which he believes can aid linguistic meaningfulness in digital communication.

Tracy LeBlanc discusses the linguistic features of discourse in virtual communities. She addresses the strategies employed by participants in online virtual discourse to create, and sustain a sense of space and identity and strengthen the community. A strong aspect of these strategies is the ability of interlocutors to acquire communicative competence in leet speak, which enables posters to maintain shared interest in the venture of building and maintaining online identity.

In chapter thirty five, Pillar Garces-Conejos Blitvich discusses how deinviduation in relates to impoliteness and how impoliteness relates to polarization online environment. Her qualitative and quantitative study of video clips posted on YouTube and related to the 2008 US primaries and presidential elections. She argues that polarization can be related to an increase in the number of positive impoliteness strategies used. By creating a strong sense of us versus them, impoliteness reinforces the out-in group division, intensifying in-group cohesiveness by making the attributes associated with the out-group undesirable.

She raises important questions regarding the applicability of current theories of im-politeness to the study of polyloguic, intergroup communication as most of their tenets were developed to tackle dyadic, interpersonal communication.

Funmi Olubode-Sawe examines how indigenous African languages can be made relevant for digital communication. The author presents a critique of one of the efforts made in finding relevance for the major Nigerian languages in a brand of Nokia phone. In the author's critique she observes that terminology presentation using the strategies of Terminologization, composition and translingual borrowing are inadequate and she proposes further refinement in subsequent terminology projects which will aim at the possibility of developing one-key symbols to represent the distinctive graphological symbols of indigenous African languages.

Section four addresses discourse behavior in virtual learning. The ten chapters in this section present insights into virtual learning, looking at different aspects of language performance such writing and speech. The chapters also present appraisals on online instruction programs, as well as attitudes of learners to these programs.

Professor boyd Davis and other scholars in chapter thirty seven examine how far online classroom participants' writings reflect critical thinking skills, fluency improvement and enhanced professionalism in teacher-created prompts. The authors' findings show that students use academic and technical terminology when engaged in extemporaneous discussions of experience. There is also an indication of fluency and critical thinking. The entries of the students which attract attention and replies from other students were also found to be written at a high level of critical thinking, measured both for group and for individual by two prominent models, SOLO and Critical Presence Theory.

Chapter thrity eight is a corpus-based work on lexico-grammatical features of research processed language. Drawing corpus from three international journals, Amelia Cava argues that relatively simple developments in the currently available technology can assist teachers and learners in this important area of language learning and teaching and supports this proposal by discussing replicable learning and teaching activities which enable learners and teachers to raise their awareness of patterns of phraseology.

Taiwo Soneye in Chapter thirty nine explores how Oral English pedagogy in Nigeria can be effectively practiced in the context of CMC. Her survey reveals that internet browsing and electronic dictionary sourcing on Oral English is having profound influence on learners, as they tend to reflect the American spelling patterns, which they learnt mostly through internet sources in their language performance. In the light of the recent developments, which make it difficult for learners to adhere to the traditional classroom instructions, she therefore suggests an integrative approach to teaching and assessment of learners.

In chapter forty, Chaka Chaka traces the evolution of CMC into social participation technologies. He also argues that that most CMC technologies have evolved into SPTs either as convergent applications or as stand-alone complementary applications. In adition, the author discusses the emergence of new genres, changing discourses, new literacies and online socialized learning. The chapter also establishes that online socialized learning leverages digital lifestyle, friendships, interests and other aspects of relational capital.

Kehinde Ayoola in chapter forty one presents an evaluation of the effectiveness of a computer-assisted program for professional development of English teachers and teacher-trainers in Nigeria. Due to its being excessively loaded for part time participants, absence of internet connectivity, low level of computer literacy, poor power supply and lack of commitment on the parts of both the trainees and the institutions they worked for, the program was not able to achieve its set objectives. The author made suggestions on how these shortcomings can be overcome in order to enhance success of such future computer-assisted programs for professional development.

Caroline Ho focuses on students' engagement through enactive role play in the Second Life virtual world. Identifying discourse strategies and features realized in students' enactments of specific roles assigned, the author highlighted how students constructed opinions and exchanged perspectives on issues raised in the context of discussing euthanasia. Evidence of varying students' recognition of religious and moral or ethical issues related to euthanasia with references to various beliefs and assumptions held by the different participants were established. There were also differences in the extent to which students were open to other interpretations in offering propositions conveyed as contingent and as one out of a range of possible viewpoints. In order to enhance overall power argumentation process, the author suggests sensitization of students and raising of their level of awareness to the linguistic resources needed for impacting argumentation in virtual communication.

Titi Fola-Adebayo reports an exploration of undergraduate students' evaluation of a MOODLE teaching and learning resource in a university of technology in Nigeria. Despite their encounter of problems using the program, the students' attitude to it was positive and they were enthusiastic about the novel experience. The author also notes that there was no significant difference in the attitude of male and female to the program. Finally she proposed recommendations that will make students realize maximum benefits from the program the future.

In chapter forty four, Rahma Al-Mahrooqi and Victoria Tuzlukova present issues on the attitudes of Omani undergraduates to their interactions with the Internet as a means of communication and as a source of authentic materials and literatures written in English. The authors provide insights into the socio-cultural views of the students to online communication. They also present the challenges facing those who intend to use the internet in instruction.

Chapter forty five is a report of a research that investigates the attitude of Nigerians to virtual learning. The author Olusola Are observes that despite that majority of the respondents find internet useful for reading and learning, the low competence level of people and the non-availability or irregular availability makes them to view use internet as a technically difficult task. The author traces some of the challenges people face in their attempt to use web-based instructions to low level of preparedness for information literacy and suggests the incorporation of information literacy into the curriculum right from the primary stage of education to the tertiary level.

Alison Nagel and Kai Woodfin present the results of a blended learning course in writing instruction piloted at the University of Freiburg for undergraduate students of English. They also present students‘ feedback and evaluation of the course, which was generally positive. The authors also outline the implications of students‘ attitudes for future integration of blended learning within the instructional program.

The last section presents chapters that address conceptual and theoretical issues bothering on digital discourse. In the ten chapters, the authors review earlier approaches to the study of digital discourse and propose newer ones that will help in the study of relational communication in mediated contexts.

Artemiro Ramirez Jnr. and three other scholars present a research work on cyberbyllying and related behaviors. The authors present a message-based approach to understanding the factors that influence the enactment of and outcomes linked to cyberbullying and its associated messages. They also suggest the need for a systematic approach to examining the message-related mechanisms that underlie cyberbullying.

Victoria Tuzlukova and Irina Rozina in chapter forty eight present a discussion on virtual research community as a socio-cultural phenomenon. The authors also underscore its importance for institutional and individual/personal expressions. They hope the institutionalization and development of Russian Communication Association will help to explore the controversies and problems of local virtual research communities and also assist in better understanding of successful implementation of international patters of virtual communities.

Christina Howell-Richardson presents the development and use of an analytic framework, based on Conversational Analysis and neo-Gricean theories of conversational meaning. This analytic framework was used to examines, code and describe the discourse behaviors and strategies postgraduate students use when they are engaged in co-operative learning tasks in an asynchronous text-based, online conferencing context. Findings reveal that participants systematically pattern their messages and use specific discourse strategies to manage their interactions.

David Morand , a professor of management presents a conceptual study that draws on the sociolinguistic theory of politeness and suggests how this theory and its considerable body of empirical findings might usefully inform research on CMC. The chapter also discusses the notion of face work, the central role it plays in social exchange and how it can help in understanding the deployment of emotions in the construction of relations in CMC.

In chapter fifty one, Guo-Ming and Khai Zhang examine the role of the new media as a major force for accelerating development in the globalised world. The new media has been acting as a catalyst for bringing human interaction and society to a highly interconnected and complex level. The author describes how the new media in its powerful relationship with globalization breaks through the limit of the traditional time and space and also constantly challenges the meaning of cultural identity. The authors unravel the intricate relationship between the new media, globalization and cultural identity.

Eleonora Brivio, Francesca Ibarra and Carlo Galimberti in chapter fifty two present an integrated approach to the study of computer-mediated interactions. The authors combine three theoretical realms - objects, subjects and processes, and three levels of analysis - local mediated interaction, everyday situation and social context. They proposed integrated approach to online interaction with the discussion of a research on self-presentation in blogs.

Erika Darics aproaches discusses the dynamics of relational works in Instant Messaging (IM). She approaches this through an interactional sociolinguistic approach. She argues that the analysis of organizational IM interactions has indicated that relational work and the care for the participants' face is an important consideration, and participants employ relational work strategies even at the cost of economising. She concludes that the linguistic strategies used for substituting audio-visual signals are strategically used in discursive functions and have an important role in relational work.

Gabriele Bechtel presents a discourse analysis of topics that defy debates in online discussion. The author offers insights affecting both theory and practice of participatory online communication. Her arguments demonstrate the factors that determine, influence, and limit that way participants interact in participatory online communication.

Elke Hentschel in her chapter in chapter fifty five argues that CMC offers a tremendous new opportunity to observe language awareness and language change. Drawing examples from phonetics, orthography, and morphology of Chinese, French, German, and Serbian she illustrates how new rules emerge in the ongoing processes of linguistic reanalysis by the language users.

In the last chapter, Tunji Odejobi Odejobi a computer engineer and Tunde Adegbola, an ICT specialist focus on the computational and engineering issues that bother on how to use technology to develop the promotion of the use of African languages in the digital media. The authors discuss the issues that surround the development of technological infrastructures for supporting communication in African languages. They argue that technologies intended for use in African environment should exploit and implement language technologies developed around African languages and cultures. They identified the key applications of the technologies and the strategies for its realization, as well as the policy issues that will make these technologies achievable

The diverse, but related disciplinary perspectives presented in this book further establish how modern communication technologies are shaping discourse and social interaction all over the world. The book gives a comprehensive overview of empirical, as well as theoretical issues on digital communication form different regions of the world. This spread in authorship and perspectives gives a balanced presentation of digital discourse behavior in both the advanced, well-studied context and the developing, less-studied context.

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Section 1
Discursive Behavior and Social Interaction

Chapter 1
Discursive Practices and Creation of Identity Using the Mobile Phone

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ABSTRACT

This chapter investigates the use of mobile phones in Australia by 18 to 35 year olds in the Hunter region; more particularly how the social construction of mobile phone use is revealed in discourse and related to identity formation. Interviews, collected cultural artifacts and a Research Journal provided the primary material, and the method of Discourse Analysis was used to consider each source of information and to compare them. Choices of phone, wallpaper and ringtone are consciously used to express aspects of individual identity, adapting functions of the mobile phone and engaging with broader discourses such as fashion and sound. Many of these discursive practices with the mobile phone are adopted for pleasure as well as utility.

INTRODUCTION

The first mobile call was made in Australia over twenty years ago (AAP, 2007, para. 4). Now the majority of Australians own mobile phones and it is the most widely used personal communication technology in this country (ABS, 2007). This chapter describes some of the first results from research that proposed to focus on the cultural meanings and practices of mobile phone use in Australia. The research was interested in Communication as socially constructed and culturally produced in interaction. For this reason, study of mobile phone 'use' as measured or observed using predetermined concepts was not adequate to the ambitious task. Instead, Discourse Analysis was chosen as a guiding methodology in order to focus on 'texts' that revealed emerging patterns of meaning and use related to mobile phones. The age of participants, 18 to 35, and their location in eastern Australia delineated a specific group of young adults who were likely to be very sociable as well as creative in their patterns of mobile phone use. This chapter examines how the mobile phone is used as a tool for identity formation.

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It explores how the mobile phone is linked to an individual's identity, their sense of agency in the world and their sense of self. Examples illustrate the diverse ways that mobile phone functions are adapted and used to communicate ideas about who individuals are. Individuals communicate by creatively navigating the discourses emerging as mobile phones are used and negotiating the links with existing discourses. The choices individuals make vary considerably but, as this chapter will show; individual choices that may seem eccentric are explicable as identity practices within the discourse of mobile phone use.

PURPOSE AND METHODS

The purpose of the larger project this chapter draws from was to analyze emerging discourses of new communication practices using mobile phones. This would answer the question of how existing discourses were negotiated and new ones created as people 18 to 35 in Australia's Hunter region used mobile phones. Knowledge of both intrapersonal and interpersonal uses was needed, to explore this purpose fully. The research design adopted three different methods to reveal the complexities of emerging discourses and afford multiple comparisons and opportunities for validation of evidence. The methods were used concurrently: the collection of cultural artifacts referencing mobile phones (advertisements, newspaper articles, radio broadcasts, Podcasts, official statistics, laws, online forums etc.), a Research Journal kept for two years and four months, and semi-structured interviews with 18 adults.

This chapter draws mainly on Discourse Analysis of the 18 interviews. Within the methodological writing about Discourse Analysis, interviews are not always classified as 'good' or 'naturally occurring data but, rather, as researcher-instigated discourse' (Philips & Hardy, 2002, p. 72). However interviews are considered a practical and valuable tool for Discourse Analysis if the study is about the individual (and their phone uses, in this case). This is because 'the way in which individuals construct themselves in an interview with a researcher may be similar to how they construct themselves in other arenas of talk' (Philips & Hardy, 2002, p. 72). In the interviews for this study there was a special interest in how discourses of the self and the mobile phone were related, and in physical and social actions using the mobile phone. Interviews were analyzed for this constructed talk as well as the description of social interaction. Interviews lasted from 78 to 108 minutes and were sound recorded using a digital mini-disk and then later transcribed. Participants were asked questions about their uses of the mobile phone, its features, their personalization of it and their communication with others. Participants were selected using convenience or purposive sampling to gain a diverse group of 18 to 35 year old people living in the Hunter Region (an area 2 hours drive north and north west of Sydney that includes coastal and regional, inland towns). As can be seen from the table below, a wide variety of people in the chosen age group were recruited, with a balance with regard to men (10) and women (8), a range of occupations including tertiary students, professionals, skilled workers, full time carers and those without work. Some had few resources; others were wealthy. One third were well educated for their age group.

SUMMARY OF PARTICIPANTS

Key terms, descriptions and social practices were observed and analyzed to identify emergent themes about mobile phone communication and to gauge their importance. Specifically, the data - the field notes, the documents collected and the interview transcripts - were schematically organized into themes that structured the complex, discursively constructed framework of mobile phone use. In executing the thematic analysis the researcher did not 'have pre-defined categories to which certain parts of a document [were] assigned'; rather (as is usual with Discourse Analysis) the researcher used a more inductive approach. The categories 'emerge[d]' from the data' (Dew, 2005, p. 298).

BACKGROUND

The last ten years has seen a growth of research on uses of mobile phones across various disciplines such as Information Systems (Carroll, Howard,

Table 1.

	Pseudonym	Age	Year of Interview	Word Count of Transcript	Length of Interview in Minutes	Years of Use	# of Mobile Phones Owned	Profession
1	Martin	20	2006	8687	52	6	4	Administrator at a hospital and sign language interpreter.
2	Richard	20	2006	10893	61	5.5	5	Communication/law university student and works in law firm.
3	Kathy	20	2006	5943	42	6.5	5	Enrolled nurse and university nursing student.
4	Alison	21	2006	5757	38	6	6	Sociology honors university student and works in a photography laboratory.
5	Melinda	26	2006	11581	79	8.5	2	Works in accounts and studies at herbal medicine college, mother.
6	Jillian	24	2006	5952	50	5	2	Casual high school teacher.
7	Tom	32	2006	11821	83	8	4	Information Technology (IT) research higher degree university student.
8	Amy	19	2007	10187	56	4.5	2	Communication university student and sales assistant.
9	Michael	25	2007	11254	67	7	4	Musician.
10	Mary	28	2007	2723	78	n/a	n/a	Research Assistant in hospital.
11	Warwick	31	2007	22607	104	4	8	Electrician, musician and hobby horticulturalist.
12	Nathan	32	2007	13504	65	6.5	4	Works in welfare and part-time university student.
13	Jason	20	2007	12240	108	5	4	Research Assistant and IT support person at university, and science university student.
14	Logan	35	2007	11607	77	8	10	Worked as a tradesman and undertaking further vocational training.
15	Adam	23	2007	14285	91	8.5	5	Finance and mathematics university student.
16	Ron	21	2007	14189	73	5	2	Aviation mechanical engineer apprentice and musician.
17	Melissa	26	2007	10026	70	4.5	2	Theatre history honors university student.
18	Rebecca	35	2007	14575	75	10	7	Mother and just completed a Bachelor of Arts (Special Education).
	Average	**25.44**		**10990.61111**	**70.5**	**6.382**	**4.5**	

Vetere, Peck & Murphy, 2001), Media, Cultural, and Communication Studies (Goggin, 2006; Hjorth, 2005; Horstmanshof & Power, 2005; Lloyd, 2006, 2007a, 2007b), Psychology (Cumiskey, 2005; Walsh, White & Young, 2007) and Business Studies (Yusuf & Naseri, 2003). Even earlier, Gillard et al (1995) included a mobile phone user in their qualitative study of phones in everyday life, however only a handful of studies have used a discursive theoretical or methodological approach. One example is Matsuda (2005) who describes the developing 'popular' discourses of mobile technology in Japanese culture even though *keitai* (Japanese for mobile phone) began as an 'uncool' business technology. Included in her discussion are issues of the use of *keitai* in public spaces and how moral panic arose surrounding *keitai* and youth. Weerakkody (2007) uses interpretive and critical theory to examine the dominant discourses of the mobile phone. She reviewed a range of academic and commercial literature to uncover some of the 'discourses of the mobile phone and its effects on children in Australia' and also conducted two interviews with Australian academics. Weerakkody uncovers some of the main discourses and 'debates about mobile phones and children' (2007, p. 2) in her work. Unfortunately, her research does not go so far as interviewing children themselves so she is not able to discover children's own contribution to the emergence of such discourses. In another Australian study, Christensen (2007) uses Discourse Analysis to explore how 18-26 year old Australians understand scientific knowledge in relation to debates about the potential health risks that mobile phones pose. Her theoretical approach revealed that the young people in the study understood 'the uncertainty of the scientific knowledge mainly in social terms and with limited understanding of the role of theory in interpreting data' (2007, p. ii). This Christensen argues has significant implications for science education, and it is recommended that the conception of scientific literacy be broadened to include risk literacy.

Of some relevance to the current study is research that uses Discourse Analysis within a Linguistic or Sociolinguistic context. Ganea & Necula (2006), for example, raise the question of whether new kinds of language or discourse are being constructed as part of the ubiquitous communication made possible by mobile phones. Their aim is 'to reveal the linguistic features of this recently emerged new type of discourse which can broadly fall into the broader category of conversational discourse' (2006, p. 210). The examples are limited to messages (SMS, EMS and MMS) that they consider 'relevant from a linguistic point of view' (2006, p. 209). They conclude that 'within mobile messaging, conventional linguistic and communicative practices are altered, yet not to the disadvantage of content, but rather in a modern creative sense, engendering a new type of discourse which shows its own peculiarities' (2006, p. 220). Their methodology does not concern itself with the contexts within which such language is produced. Thurlow (2003) examines the linguistic varieties and communication purposes of text-messages by studying those messages but not the people who create them. He concludes, 'just as new linguistic practices are often adaptive and additive rather than necessarily substractive, young text-messagers manipulate conventional discursive practices with linguistic creativity and communicative competence in their pursuit of intimacy and social intercourse' (2003, para. 79). Also grounded in a linguistic understanding of discourse, and based in Hong Kong, Yung's (2003, 2005) research aims to develop a 'material approach' in a linguistic analysis, which 'takes material objects as the starting point and identifies ways to incorporate a class of objects in discourse analysis' (2003, p. 211). This study 'begins to fill the gap between semantics and discourse analysis regarding the treatment of material objects in linguistics' (2003, p. 218). An article which complements the research outlined in this chapter is the theoretical paper by Pellegrino (2007) who explores three different discursive frameworks for answering the question of, 'how mobile and ubiquitous artefacts emerge through negotiation and conflict' (Pellegrino, 2007, p. 76.) This paper is useful in considering the meeting point of three different discursive frames (academic discourse, mass-media discourse and the designers' discourse), however it does not use empirical evidence to illustrate how these 'different public arenas shape core meanings attributed to technologies' (Pellegrino, 2007, p. 59), nor *how* discourses about 'ubiquitous' and 'mobile' technologies are mobilized by individuals.

The current study has an avowed focus on discourses of the mobile phone within the immediate social and cultural contexts that produce them. Its concern is with identifying those communication practices that are participating in mobile phone discourses, and interpreting their broader significance.

Discourse Analysis

Discourse Analysis, in this research, is a particular way to explore the operation of emerging discourses of mobile phone use, in relation to other discourses, for the purpose of forming and expressing personal identity. There are many definitions of discourse and Discourse Analysis (Mills, 1997; Phillips & Hardy, 2002). Some researchers have argued that it is 'better to view Discourse Analysis as a range of approaches rather than a single practice' (Smith & Bell, 2008, p. 79). Indeed in media and communication research there has been a 'lack of precision in how it is used, and with what theoretical assumptions' (Yell 2005, p. 15). Just as there are many understandings of discourse there are also many different approaches to analysis. Wood & Kroger therefore argue for a 'bricoloeur' approach. They suggest that the best approach is one that draws on the strengths of 'different perspectives as appropriate to the specific project at hand' (Wood & Kroger, 2000, p. 25). In this research Discourse Analysis is both a 'perspective and a method' (Phillips & Hardy, 2002, p. 59). It has been used as a guiding methodology, that is, a broad conceptual framework that shapes the research design and the specific methods used in combination. Discourse Analysis investigates and reveals the social processes of the construction of meaning (Phillips & Hardy, 2002). It is the 'search for meaning behind the social construction of words, sounds and images that remains at the heart of modern discourse analysis' (Smith & Bell, 2008, p. 80). In this study, it is used to frame meaning and illuminate how individuals communicate with mobile phones in a particular cultural context. The methods assist by documenting the practices: language terms, behaviours, rules, expectations, values, as well as the way particular objects, signs and texts are appropriated. The Discourse Analysis methods developed here integrate the micro and macro contexts. They work at an individual level, intent on tracing personal experiences and uses of the mobile phone (hence the use of interviews - personal accounts), then informing these with wider held beliefs about mobile phone use (hence the analysis of 'mobile phone' documents while the research was taking place) (Blommaeart, 2005, p. 28) and these were augmented with observations from a Research Journal (used to enhance reflexivity within the research) (Lloyd, 2009).

There are similarities in the methods and the texts used for this study and those used in Critical Discourse Analysis (CDA) which 'provides a way of moving between close analysis of texts and interactions, and social analyses of various types' (Fairclough, 2001, p. 229). However the purposes are different. Critical Discourse Analysis has been described as 'a type of discourse analytical research that primarily studies the way social power abuse, dominance, and equality are enacted, reproduced, and resisted by text and talk in the social and political context' (Van Dijk, 2001, p. 352) and CDA work is 'concerned with power and inequalities within society' (Wetherell, Taylor & Yates, 2001, p. 316). The current study has a focus on the emergence of discourses about identity and self in uses of the mobile phone. It begins at this individual level in order to discuss one cultural group in a process of change. Any critique that is concerned with social power and dominance will need to emerge from the close analysis rather than residing in the theoretical framework for the study.

For this project meanings are emerging and being adapted in relation to the mobile phone and its personal, interpersonal and intrapersonal uses. These meanings are expressed in the texts (in the discursive sense) that are created as individuals (or groups) use their mobile phones in public or private spaces, or speak about themselves and their mobile phones to a researcher. Texts (with images, music and movement) may also be produced for commercial or information purposes and appear in various media such as newspapers, websites, large billboards or pamphlets. Over time, the analysis of such a rich source of texts reveals discourses that are emerging in use and becoming culturally patterned as they influence and are in turn shaped by existing discourses and discursive practices. Phillips & Hardy confirm that Discourse Analysis uses 'naturally occurring' texts as data and these texts can include 'talk, written texts, nonverbal interactions, films, television programs, and other media, symbols, and artefacts' (Phillips & Hardy, 2002, p. 70). The definition of 'discourse' attests to the connections between such an array of texts, and includes the action of individuals and organizations as they construct and produce them. Discourse is defined as 'an interrelated set of texts, and the practices of their production, dissemination, and reception, that brings an object into being' (Phillips & Hardy, 2002, p. 3). It is this broad and dynamic definition that guides the present study and the research design and fieldwork.

The use of discourse analysis (DA) to study identity formation is familiar across many disciplines (Benwell, & Stokoe, 2006; Blommaert, 2005; Bucholtz, Liang & Sutton, 1999; De Fina, Schiffrin, & Bamberg, 2006; Pertierra, 2005; O'Saughnessy & Stadler, 2008). Ivanič observes, 'the social construction of identity requires 'building materials'. The materials are socially determined, and individuals draw on them, in socially constrained ways, in the process of 'construction'' (Ivanič, 1998, p. 47). Indeed, DA has been seen to be a method that is very useful in revealing the very activities and objects used in the processes of forming ideas of self and identity (Benwell, & Stokoe, 2006; Blommaert, 2005; Davies & Harré, 1990; O'Saughnessy & Stadler, 2008). In this study methods were designed to capture the dynamics of meaning-making and textual production, using the mobile phone in public, in friendship and family settings, on more intimate occasions, and when individuals could not be observed or were sleeping. The age group selected (18 to 35 years) has the 'highest levels of mobile phone use' (Wajcman et al 2007, p. 9). 'Mobile phone use peaks in the age range 18 to 39 years, where 94% regularly use a phone' (Wajcman et al 2007, p. 8). During the years 18 to 35 transition to one's own family and establishment of a work identity are features that make the study of identity using mobile phone use especially pertinent. The following analysis will demonstrate how choices about mobile phones are consciously used to express aspects of an individual's identity.

PERSONALIZATION: CONSTRUCTING AN IDENTITY

I just wanted to personalize it so I picked the ringtone and took [a photo with the camera on the phone and made] a wallpaper, put a wallpaper on it. I was a bit excited by the fact that I had a camera and I never had a phone with a camera before (17).

The reason Melissa was excited about having a camera is that it meant she could fully personalize her wallpaper by taking a photo of something in *her* life – not having to use just a pre-determined image that is already stored in the phone's factory settings. This quote articulates the desire she has to construct and validate her identity through the use of her mobile phone. As Melissa's example shows, who a person is, and how they would like to be understood may be expressed through the mobile phone they choose and the personal changes that are made (or not) to the material object itself. The choice of 'which mobile' can reveal knowledge about how an individual understands their place in the world and their sense of self. Do they prefer a 'candy stick' or a 'flip'? What features (both technical and aesthetic) of a mobile do they need or want? Further, there are numerous elements of a mobile that individuals may 'personalize'. They may choose a particular ringtone because it will inform them when a valued friend calls or they may create their own images, known as 'wallpaper,' to decorate the screen of their phone. Each choice is informed by, and has a bearing on, current sociocultural trends and existing discursive frameworks, such as professionalism, friendship, family, community, gender, fashion, technology, entertainment, commerce and advertising. The selections that people make for their mobile phones can both show and shape who they are by engaging with these existing discourses.

There are many examples of research in other countries, from the mobile communication research field, of users personalizing their mobile phones (Hjorth, 2006; Kasesniemi, 2003; Okada, 2005). For example, Okada has discussed Japanese youth's personalization of mobile media such as ring tones, short messages and cameras, and their 'adoption and transformation' of the mobile media landscape in Japan. Okada suggests that their choices are affected by individual uses and personalization, as well as 'policy and market conditions' (Okada, 2005). Katz investigates how mobile phones are fashion statements in *Magic in the Air*, where the mobile phone is considered 'as both a physical icon and as an item of decorative display related to fashion and design and popular culture' (Katz, 2006, p. 65). He argues that the mobile phone is 'strongly connected with ingrained human perceptions of distance, power, status and identity' (Katz, 2006, p. 65). He maintains that the mobile phone has gone beyond its utilitarian role (a device for making calls) and has become 'a miniature aesthetic statement about its owner… in a word fashion' (Katz, 2006, p. 66) On the other hand, van Elferen, and de Vries (2007) explore the idea of ringtones as cultural performance.

Perhaps more pertinent to this study is Stald's (2008) research that is focused on adolescents, identity and learning in Denmark. Stald explores the 'meaning of the mobile in young people's lives, specifically in relation to questions of identity' (2008, p. 143). To do so Stald investigates four themes for 15-24 year olds: availability, presence, mobile as a personal log, and the mobile as a tool for learning social norms. Stald's work reveals the importance of the mobile phone for teenagers in the development of their personal identity and illustrates how this process encompasses 'the constant negotiation of norms and values and the processes of reflection that are characteristic of contemporary social life' (Stald, 2008, p. 161). While this research does not use DA explicitly, the process of negotiation that is described in its conclusions fits very well with the approach of our Australian study.

Ringtones and Identity

In this Australian research project, individuals' personalizations of their mobile phones are sometimes very visible, sometimes subtle. There are two important elements in choosing the 'right' ringtone. Individuals are constrained by the functional aspect of the choice. Their ringtone needs to be clearly audible and long enough in duration to allow an individual to hear it, find their mobile phone and answer it. If a ringtone is too short there is a risk of missing the call, which is inconvenient to both the person receiving the call and the one making the call. Adam articulated this part of the decision process when he commented that,

with ringtones you need to have, sort of hip hop songs or pop songs work better than rock songs, or slow songs because you won't hear it, it's just too monotone sort of thing, guitar chords don't work you need something that's staccato (15).

The second element that influences an individual's choice of ringtone is the way in which the individual identifies personally with the ringtone. For some there is a strong connection between how they feel about themselves, and how they want to be publicly known. Recently in Britain, there was a case where a ringtone was thought to have such a strong connection with its individual that it (the Crazy Frog ringtone) was played at the funeral service of the departed (Merritt, 2006, para. 2). Brennan recently stated, 'In the 1990s there was [were] a lot of young people walking around in t-shirts with band names printed on them. So it was a very kind of public performance… of identity. I think mobile phones are the new public performance of someone's musical tastes' (Brennan in Macey, 2007, para. 21). In this research when participants were asked, 'what ringtone do you use?' the response was extraordinarily varied. Logan, a thirty-five year old Australian tradesman chose 'AC/DC, *TNT*' because it is his 'favorite song' (14). Melinda chose 'Destiny's Child, *Jumpin, Jumpin*' (5). Melinda was a working mother with a young child, who was also studying. For her the choice to spend money on a new ringtone was important some years ago, however now under different financial conditions it was not. Hence Melinda laughed self–deprecatingly as she revealed her choice and went on to explain that she had chosen the song some years ago when it was popular, and her laugh was in recognition that this song was no longer in the 'top 10' charts. For Alison, who thought she owned a 'yuppie wanker phone' (a pretentious one), her ringtone choice was disappointing to her as it was her second preference. She said,

I've got a George Gershwin, and it's just a standard one that came with the phone. But the only reason that I got that is because it doesn't have my ringtone that I had on my last phone which was 'Pachelbel's Canon', which I really like. Yeah I was kinda mad when I found out this one [phone] didn't have it on it (4).

Some mobile phone owners go to extraordinary lengths to get the ringtone they feel is 'right' for them. 'Right' being a ringtone which the individual feels is personal and understood to be uniquely associated with them. The value of having a personal and identifiable ringtone for a mobile phone owner is revealed by Adam's explanation of what ringtone he uses and how he acquired it.

It had a recorder, which is pretty bad [quality], you can record voice, so I just played a song off the Internet and hit record [on the mobile phone], and that's my ringtone at the moment. I did that, I played an MP3 out of my computer and recorded it, and that was my ringtone for about a year. Because it was a song that is one of my favorites but nobody really knows [it] ... So yeah I recorded that and I loved that ringtone for about a year, and then I've decided that maybe it's time to change, [it was] Fallen Giants by Herbatude, the new one is All You've Got by Catalyst (15).

Another of the participants, Ron belittles his efforts and is annoyed by others who think that their mobile phone plays music well. Ron (who identified as a musician) had gone to the effort of creating his own ringtone

I like to compose ringtones but I mean I've had the same one for ages it's just stupid wanky like, 'oh I like the Deftones, so I'm going to compose one of their songs as my ring-tone', that sort of thing, just dumb stuff. It's one of their songs and *it sounds ridiculous and I used to love how people would always say 'oh my phone plays music' and it's like 'You can't listen to that! You can't! 'Pffft, ding-ding-ping-ping-ping, de—de—de—de—de—de—de—de. That's cool' (laughs) (16).*

Melissa, a violinist (who also identified as a musician) answered the question about what ringtone she had in a somewhat dismissive way, saying she had 'a musical one' that it sounded 'like a tune, a piece of music, but nothing identifiable'. And although she thought it was 'classical in sounding a little bit' she said she chose it as it sounded

a bit more interesting than some of the standard ones and it wasn't annoying, it wasn't Beethoven's ninth and it wasn't an SOS call (17).

The way Melissa responded (chuckling) implied that it wasn't a big or important decision, yet when the researcher asked her later in the interview, 'when you first got the phone, what was it that you first wanted to learn about it? She responded with, 'personalize it'. Part of the reason was because her phone was a second-hand handset provided free by her boyfriend who worked in a mobile phone retail store that did trade-in deals. So her mobile phone wasn't a purposefully chosen new phone (like another participant, Martin's phone was) and therefore she wanted to make it her own by changing the settings. So on the one hand the ringtone was not important to Melissa in performing her identity, but on the other hand it was, in that she chose a ringtone that was still in line with her education and tastes.

Interestingly, Warwick and Michael who had already identified themselves as musicians who played in bands had both chosen quite different tones. Warwick had chosen one which he thought was 'cool'; it was a jazz styled piece of music. He said, 'I picked the funkiest, jazziest sort of one it's sort of pretty cool (11). Michael on the other hand was 'still on the standard Nokia tone'. Each participant seemed to feel the need to justify or explain their choice - just one that was on the phone - or laughed at his choice. Michael's laugh is indicative that he thought it was humorous that although he was a musician he had not chosen to give this 'musical' choice any attention as yet. Michael's laugh may also suggest he shares Ron's view that ringtones were not 'real' music.

For Nathan his choice of ringtone was simple – he 'loves' the Mexican Hat Dance – so that was what he chose

Mexican Hat Dance, I love the Mexican Hat Dance. Funnily enough the boss of my old job, he had the Mexican Hat Dance on his phone and he had it sitting on his desk and it always rang, but that wasn't his work phone, that was his personal phone and he was like doing outside things. Whenever it started playing we started doing this little dance, it's like do-do-do-do-do-do-do-do-do and I just said I've got to have that… So yeah it had to be the Mexican Hat Dance for me (12).

What is also interesting in this comment from Nathan is that he feels that he has to justify his boss's choice of the Mexican Hat Dance. By pointing out that it was a 'personal' mobile phone and not his boss's 'work' mobile phone Nathan's comments are an indication that the choice may have been judged as inappropriate within his professional capacity (working in the field of welfare work), but that as a personal choice (and display of individual style and taste) it was acceptable and even enjoyable for others hearing it.

Another reason for individuals attending to the choice of their ringtone, apart from its display of their musical style and tastes, was that many connected emotionally with the sound. For example, Tom commented that his selection of different tones for calls, text messages and the alarm may affect his mood and his response to what was around him. He said, *while I was waking up, I'm a student but I was feeling like an agent who'd just received something on the wire, 'going on a mission, everything is in secret', washing my face, look into the mirror like I'm a hero, I'm going to save the world (laughs). So I just changed it to something else and it was quite depressive, and while [doing] all little things, I was feeling 'oh my god it's raining and so just another day, life shouldn't be that short', and so I was feeling a little bit depressed. It [the sounds of the mobile phone] really affect the way that I live (7).*

However, some participants opted to use the silent (with vibrate) function as a replacement to their chosen ringtone, as although ringtones are so carefully selected by individuals they may be annoying for everyone else. As Macey states, 'for some people it's an expression of their personality, for others it's just a pain in the ear' (Macey, 2007, para. 6). This often applies to all ringtones chosen as they are an 'attention or warning signal' (Ringtone Society, 2006, para. 1). Whether in a public or private space, when a mobile phone rings all those in its immediate vicinity will hear it. A ringing mobile phone is likely to demand attention, (except of course for the 'mosquito' ringtone. This sound which was originally invented to repel young people from loitering in certain areas, was then appropriated as a ringtone by young people because it is generally only audible to those aged 25 years and under) (Noguchi & Hart, 2006). A mobile phone ringing is almost like calling someone's name – the technology seems to insist on being answered by its owner because a mobile phone number is ringing for *one* person only, unlike a landline. Australian personal mobile numbers are not normally publicly available, so a ringing mobile phone means that it is likely someone who knows the owner who is trying to get in contact. Consequently, a selected ringtone is known and identified by its chooser.

As mentioned above, some of the interviewees did not really use a ringtone. The following twenty-two year old participant chose to use only the vibrate mode as he was acutely aware of how a ringing mobile phone can interrupt space and mood. Though Richard had also gone to some effort to get a ringtone that he felt connected to,

the actual ringtone that I have its called, 'police dogs bomb fire'. It didn't come standard on the phone, its like an mp3, that I copied from a CD that I had, but it reminds me of riding bikes in Vietnamese rice paddies, that's what the song is, and I just liked it because it was so random, and it just made me smile every time I heard it, so I set that as the ringtone (2).

This participant went on to explain that because his mobile phone 'goes off quite a lot'; he had chosen to mostly leave his phone 'on silent'. He said,

I always have my phone on silent, 'cause I for some reason I don't like my phone ringing, I think it could be because I don't like people knowing when I am getting texts or phone calls, or stuff like that, so I can get a text, and if there is no tone that goes off then I can sort of access it whenever I want, I know it's vibrated and it's there (2).

Likewise for Amy who out of politeness would 'usually' have her mobile phone on silent,

it's always on silent usually... like all day, while I'm at uni, just so I don't interrupt any lectures or anything, while I'm at work it's on silent so it's only really on, 'on' like at night after five (8).

Some participants chose the message tone to be 'discreet', such as Warwick who answered,

I've always tried to keep the most silent-est tone of my text message as I possibly can, the one that just goes m-m-m. Not, not, not 'HEY YOU'VE GOT A TEXT MESSAGE!' (11).

However, one participant had two conflicting choices for the tones of their incoming calls and text messages. Jason consciously chose a subtle and inconspicuous alert for his incoming text messages, but he also chose a 'loud' and 'disturbing' song he could identify with for his ringtone,

The message one's a rather discreet one, it's just a little chime, it's discreet, it goes for like a second, so in lectures it's not really disturbing but I still hear it so it's useful. Ringing however I've got… The Best of You' by the Foo Fighters, so it's rather loud and when the volume's turned up it is rather incredibly loud, rather disturbing to everyone around me but, you know (13).

The comments from participants highlight how making particular choices about what ringtones they have is a common way for them to communicate who they are: their tastes, their confidence, their importance, their knowledge of technological possibilities, or perhaps to keep all of these deliberately silent. On one level these practices are all very individual yet on another level the participants of the study are all engaging in very similar socially constructed behavior. It could be argued that this is what the technology affords - opportunities for personal customization - however no person is made to change their ringtone. Rather, these are choices that individuals decide on and, importantly for this research, can clearly describe, justify, enjoy or gently ridicule in relation to themselves, with little prompting.

Mobile Phone Photos and Identity

I keep pictures on my phone because it's like keeping pictures in your wallet (13).

Another way mobile phones are used to connect to a sense of self and contribute to identity construction is via the camera functions and the photo storage ability of handsets. Individuals in this study often used the camera on their phones to 'record the moment'. For example, concert goers frequently captured their live experiences. (A quick scan of videos on *YouTube* at media events and live concerts illustrates this use globally). Michael, for example, felt he didn't use the camera function on his phone a great deal, but he *did* use it at concerts and for photos of 'loved ones' and he had not deleted any of his images. Michael also said he liked to use his camera phone to 'stupid shoot'. Stupid shoot is where the camera on the mobile phone is used to capture odd, weird or quirky moments or events in a person's everyday life, as he explains.

I have received a couple of images, one was of a shopping trolley on a stop sign, upended and that was great. And the other one was a band mate of mine with two cats, It was a really cute sort of photo with smiles and happy stuff, yeah which was good (9).

Warwick also uses the camera on his phone to capture moments of his life or things that he identifies with. He used the camera phone to collect memorabilia of a medium sized local theatre stage entrance,

I've taken heaps of snapshots of my cats, I've taken, I've got a screen saver on there at the moment it's actually like a trumpet and [trumpet players name] hands around it… that's just his hands from a gig he played out at the Ducks, Ducks Corner or something, the Quacker's Restaurant just down at Eleebana… the double bass, you can see the side belly of it in the background, but it's just his hands on the [trumpet] real close-up. And he's [a] great trumpeter, and it's sort of good for that sometimes you can, the phone's great when you're at a little gig and you know and they don't mind if you [take a photo]… I like having stuff like that as a screen saver. I've got pictures from posters on the wall in the Civic Theatre in the Playhouse, I took some pictures of *posters 'cause it was all gonna be [renovated], I don't know what was going to happen to 'em but I probably wasn't ever going to see it again, I was work'n there and I just took some photos of the walls and some close-ups here and there of some [of] that (11).*

Another way the mobile phone may function in the process of identity formation is through the use of photos for purposeful sharing to bond with another person. Richard explained that,

If you meet someone new or to get someone to know you better, I show them through all the photos, cause it sort of tells a story of my last year, 'oh this is us at that', and 'that's my friend', and 'that's my cousin'. So by explaining all the photos, you can sort of explain yourself a bit better (2).

This method of self-introduction, using photos stored on the mobile as the preface to a friendship demonstrates the significant role that the mobile phone is able to play in the communication of an individual's identity when they need a kind of personal history. Individuals often stored memories and autobiographical information (including personal secrets) in their mobiles. Melissa learnt this when she first acquired her current phone, which was second hand.. The first thing she did was to go through all the sections of the phone to personalize it. As she did this she discovered,

It actually had some photos and messages left on it from the previous person (laughs) so I had to go through and have a chuckle at it and then delete them all (laughs). I thought it was a little bit odd and a little bit like I was peeking in to somebody else's life or something. It's amazing how much of our lives we store on these tiny little gadgets, it's kind of, I think that's what would worry me most if it [the mobile phone] got lost or stolen (5).

A similar occurrence was recorded by the researcher in the Research Journal.

One Monday evening we ran into an old school acquaintance of my partner's. This person revealed that he had recently 'come out'. He went to tell his brother and his brother already knew – and was cool with it. He asked him how he knew? The brother replied that the old phone Joshua had given him didn't have all the images deleted and Joshua implied, in the telling, that some were sexually explicit (Research Journal, 17 August 2006).

Both of these accidental discoveries emphasize how the object of the mobile phone has become entwined in an individual's expression of their most intimate selves, that is, through retaining stories and secrets via photos and messages stored on handsets.

Another use of the camera function by research participants is the practice of using it to take photos for the 'wallpaper' on their phones (the image that displays in the background of the home screen on the phone). For one participant, Richard, the photos he took and kept as his wallpaper were 'usually' of himself – clearly a type of identity performance. He said,

It's usually been photos of myself, or (laughs) at the moment it's me. It's a picture of me, I'm wearing an orange tie and a bit of suit, I'd done a hand modeling competition, and it was just this random one, we'd gone for a coffee after, and it's got a bit of a coffee table and the coffee, oh it was a cup of tea, just in the background, without my head but it just looks like a really cool pic (2).

Whereas musician Michael had taken a photo of his drum kit!

I bought it and I'm very in love with it at the moment and I just want to be reminded of it, I suppose yeah (laughs) (9).

Logan who described himself to be 'fairly philosophical' had chosen a picture of Buddha as his wallpaper, although he did have a picture he took of his girlfriend 'for a week or so' (14) but changed it back to Buddha indicating with laughter that he felt much more comfortable with the picture of Buddha. Another participant, Melissa, who said she was a non-conformist and that she likes the quirky things in life, had chosen images she had taken that were personal to her because of who and what they reminded her of.

At the moment it's a picture of the Virgin Mary that I took from a postcard that somebody sent me, it has also been a Dalek from Dr Who and a picture of my tattoo (15).

Nathan chose to have an image that he had taken that was significant to him. It was a young member of his family. He said of his choice,

a picture of my nephew, it was actually me and my nephew and we're being silly so I just thought I was happy with that there. (12).

Although these examples of taking and keeping photos as discursive identity practices are diverse and somewhat idiosyncratic, they are consistent in demonstrating how mobile phones are used quite deliberately to produce sounds and images strongly associated with an individual's pleasures, intimates and friends, or spiritual values. It seems these self-referential, creative uses contribute to happiness and may be useful in some instances in the performance of identity and sharing of personal history. The mobile phone has evolved as a tool for forming and expressing one's identity. Through these interactions a mobile phone owner is locating, negotiating and adopting discursive communication choices: choices which indicate the way a person wants to be known in the world, and to know themselves.

FUTURE TRENDS

A first reading of this data gives the impression that individuals gained much enjoyment from applying different possibilities of the technology and inserting something of their own into or onto the phone. While the contents differ markedly, there is a self awareness about the ways people described how and why they personalized their phones. It may be tempting to argue the 'entertainment' uses are moving quickly into what has been seen as a technology of voice and text communication. However, if the identity aspects of personalization are considered more seriously, it seems likely that in future we will draw knowingly on broader cultural discourses to describe mobile phone use as more like a mirror than mere entertainment. People can decorate and write and copy cultural content, including their own faces, to give emotional depth to their daily experience, and to tell others what their presence means, even though the contact may be ephemeral. The finding that participants had images of themselves, a Buddha, a family member, a musical instrument or the animals of friends demonstrates that the objects that need to be used for communication also seem to carry a kind of love and affection that owners are pleased to engage with and share. Further analysis could look more closely at the significance of particular communication practices for individuals; how the emerging discourses of mobile phones are related to other discourses and cultural activity and how these are used to shape identity in interaction with others.

CONCLUSION

The presence of a mobile phone in their life provides an individual with a large scope of discursive communication practices in relation to identity formation. Mobile phone use has already developed a discourse that can be seen and analyzed using different methods and across various media. The choices that individuals make about their mobile phones reflect to themselves (and others) what they enjoy and engage with: the mobile phone is used to construct some aspects of their identity. The personalization of the object itself reveals this complex negotiation of self-expression and style.

This chapter has examined the mobile phone communication practices of a sample of young Australian adults and has illustrated how the mobile phone is a significant enabling device for producing personal identity. We have used the richness of this data to demonstrate the many ways that the participants engage in the discursive construction of mobile phone use to generate identities. These identities, like the technologies that reveal them, may be fragmented, moment-by-moment, fragile and influenced by many other discourses. Mobiles reveal this process going on. The discursive elements of any discourse are so interlinked and entwined that it is hard to separate them; however here we have begun to unravel some of the main features of the discourse of mobile phone use. This chapter has provided insight into how features within the discourse of mobile phone use are socially constructed and make specific actions understandable and therefore likely to be repeated and adapted by many others in the building of mobile phone cultures.

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KEY TERMS AND DEFINITIONS

Communication: Social meaning-making conducted in interaction, though not necessarily in real time. Communication may be in person or through varieties of media, including print, sound, and online.

Discourse: Discourse is a theory and set of methods that unpack the dynamic processes of the social construction of meaning.

Mobile Phone:A small technological object designed for making and receiving calls and text messages. It is worn or carried by individuals and operates without a physical connection to the network.

Research Journal: A systematic record, usually written, that is kept by a researcher for the purpose of observing and reflecting on phenomena relevant to a particular research study. This method is used most to document spontaneously occurring events or those connected with the day to day experience of the researcher.

Ringtone: The sound chosen to be used as the audible alert a mobile phone makes when another person is calling.

Text: An element of a discourse. This can include talk, written texts, nonverbal interactions, films, television programs, and other media, symbols, and artifacts.

Wallpaper: The picture chosen to be the image visible on the front display of a mobile phone.

Chapter 2
Status and Email Construction in Three Hong Kong Workplaces

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ABSTRACT

In many workplaces, social relations such as hierarchy may be uniquely indexed and performed in the email environment. In order to study this phenomenon, 250 emails were collected in three different Hong Kong organizations (corporate, non-profit, and university), and examined the impact of hierarchy on the email practices. it was found that the ways that members of diverse organizations navigate the (sometimes competing) domains of transactional and relational workplace discourse in their email communication are influenced by social variables interacting on different levels. On the macro-level, email discourse is influenced by linguistic conventions that characterize both the "professional email culture" and norms specific to the organization or community of practice (cf. Eckert and McConnell-Ginet 2007, Holmes and Stubbe 2003). On the micro-level, substantial differences in emails written by members of the same organization are explained by personal, interpersonal, and socio-structural factors, among them, professional rank and individual style.

INTRODUCTION

The aim of our study is to investigate features of business, non-profit, and academic, email communication in Hong Kong, using a Communities of Practice (henceforth CofP) framework. Here we examined 100 internal emails from an engineering company (pseudonym BHJ), 40 emails from a non-profit organization (pseudonym Public Company), and 100 emails from two academics in one department at a university (pseudonym NL at GGU)[1]. This collection resulted in three widely varying corpora as a function of different workplace types and different data providers, a rich compilation particularly in view of the fact that email researchers are largely at the mercy of what participants will provide them. This richness is intensified by the varying number of players over short messages interspersed over

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several communicative events, which allows us to isolate individuals' practices. The benefit of this type of amalgamation is the window it gives us into different workplace cultures and communicative practices.

Interesting about the study of workplace email communication is the fact that the domain, the message initiator, and to a broad extent, topic, are automatically held relatively constant. We obtained another constant by restricting the study to the internal emails in each workplace. Thus, we were more likely to obtain a picture of both individual email style as well as any potential workplace-specific trends.

The uniqueness of email as a communication medium is owed in part to its intrinsic nature as an oral-written hybrid medium: as a written medium, it allows persons an unusually intense, regular, and potentially persistent contact with their own discourse, with metalinguistic awareness (even 'hyperawareness') (Rowe 2007). As an oral-linked medium, email turns are often short, with rapid turnaround (Baron 1998). Already written language is typically less spontaneous than oral language; but in the workplace, email--unlike the paper office memo (which still persists in many organizations in some aspects of workplace life, such as meeting agendas and minutes)--encourages short, frequent communications, rather than the weekly 'laundry list' of items typical of the hardcopy office memo practice. Furthermore, email also serves as an efficient correspondence and recordkeeping tool (Hoessjer & Severinson-Eklundh 2009, Waldvogel 2007), particularly with its 'include previous message' feature (Rowe 2007).

Moreover, Sproull and Kiesler, in their seminal 1986 article, find, among other observations, that "because reminders of the presence of other[s] are…weak in [email], people [when emailing] are self-focused rather than other-focused (1986:1500). They also found that "messages [to and] from superiors look the same as messages [to and] from subordinates" (1986:1497) indicating an 'equaling' effect of email. This, in their view, resulted in people being more likely to be comfortable using email to communicate 'upward' in the hierarchy while preferring, in their study, face-to-face for 'downward' communication (1986:1507).

These findings do not apply to all workplace scenarios, as Sproull and Kiesler themselves submit (1986:1510). It is clear from accommodation effects found in some studies, for example (as in Rowe 2007 and elsewhere), that some e-mailers are at least equally other-focused as self-focused. The present study, too, will find e-mailers engaging in very other-focused activity, as shown in status effects in the study. Furthermore, results found by Hoessjer and Severinson-Eklundh (2009), for example, contradict Sproull and Kiesler's finding about egalitanarianism; indeed, they found in their newsroom study that email had the effect of reinforcing existing hierarchical structures, rather than equalizing them. In our study, as well, it is found that messages to and from superiors may or may not look like messages to and from subordinates, and that this depends in most cases on the individual style preferences of the e-mailer. While some e-mailers did not appear to communicate according to status of the addressee, others displayed a pattern that did reveal a status-oriented communication style. These findings are along the lines of O'Neill and Colley (2006) who found status effects in email style between student and (faculty and administrative) staff. In fact, one of the more striking status effects was stylistic accommodation (Giles and Powesland 1997), and in particular, initiative (referee) shift (Bell 1984). We find this effect as well; the difference between our study and Hoessjer and Severinson-Eklundh's, however, is that our most interesting effects obtain in a downward direction—that is, from superiors to their subordinates.

In terms of routine communication, Hossjer and Severinson-Eklundh (2009) noted that many organizational groups used a 'template' style of correspondence, particularly with one- and two-way correspondence --that is, monologic messages, usually a directive or comment, and dialogic couplets (see also Zack 1993), consisting of a comment or question followed by response. Our results show this style in particular with subordinates in the engineering group and, to a lesser degree, with the non-profit organization. The university setting did not appear to apply this type of structure at all, its business lending itself to a more freeform style, patterned only on the individual (rather than the organizational) level.

THE DATA

We collected the emails of staff at three different organizations. Since our CofP focus was on the patterns characterizing the emails written by members of the same organization, we focused on internal mails only. Overall, more than 200 emails were collected: at BHJ, an engineering company, we collected 100 emails; at Public Company, a non-profit organization, 40 emails; and at the NL department at GGU, one of the universities in Hong Kong, 100 emails. At each organization we asked volunteers to provide samples of their everyday workplace emails that they considered to adequately reflect the types of email they write over a period of one week. These were requested after they had been sent, which allowed us to eliminate the observer's paradox. Participants were also asked to delete with a black marker any information, such as identity and sensitive project information, that they did not want to disclose. After they had given us their email samples, we replaced real names of persons, organizations, and specific projects with pseudonyms in order to ensure that participants and their interlocutors could not be identified.

In order to explore in a CofP context the ways in which professional emails reflect, reinforce, and also resist organizational (particularly hierarchical) norms, we discuss two linguistic phenomena that are particularly salient in the data, namely (1) rituals and (2) informality effects. The rituals that we investigated were of two types: (a) context-specific 'formulas', and (b) greetings and closings. Formulas may show adherence to organizational norms, or may reflect the style of the individual. Greetings and closings are interesting particularly because of their link to status, as we will discuss. The informality effects that we studied include those found in the rituals and greetings/closing; we will also comment on the use and functions of humor in the corpus, particularly as it relates to subversion (cf. Schnurr and Rowe 2008).

COMMUNITIES OF PRACTICE

Organizational members often develop distinct expectations about normative ways of interacting with each other, and of working together (Wenger 1998). These expectations are not only reflected in the linguistic repertoire developed among organizational members, but are also evident in their email communication. In particular, over time, people who work closely together tend to create a shared repertoire of linguistic norms on which they regularly draw when communicating with each other.

This applies in particular to groups that can be classified as communities of practice (CofPs). The notion of a community of practice was originally outlined by Lave and Wenger (1991) and further developed by Wenger (1998). A CofP approach focuses on the ways in which individuals construct their membership in certain groups through their shared activities, including their language use. Based on this research, Eckert and McConnell-Ginet (1992: 464) define a CofP as:

an aggregate of people who come together around mutual engagement in an endeavor. Ways of doing things, ways of talking, beliefs, values, power relations – in short, practices – emerge in the course of this mutual endeavor.

Wenger (1998) identifies three crucial criteria for distinguishing different CofPs: *mutual engagement* (including regular interaction), *a joint, negotiated enterprise* (such as the shared objectives or the purpose of a particular working group), and *a shared repertoire* developed over a period of time (which may include specialized jargon, routines, inside jokes etc). The three workplaces where we collected data for this research fit the criteria for CofP, though one of them (NL at GGU) fits the criteria much more loosely. The two that solidly constitute examples of CofPs-- BHJ and Public Company-- are relatively small departments where staff regularly interact with each other around mutual topics (such as the various projects they are working on). They have developed a shared repertoire of normative ways of communicating with each other, as reflected, for instance, in their internal emails. Moreover, these two workplaces are set up in 'studio' fashion, BHJ having low cubicles which facilitate 'prairie-dogging', and Public Company having an 'open plan' with no cubicles at all. In contrast to these two workplaces, the NL department at GGU does not seem to constitute a paradigmatic example of a CofP. In an academic department, members do not regularly participate in mutual engagement in the same way as members in the other organizations do (e.g. meet regularly throughout the day to discuss professional topics). Though members share the same goals—to conduct research and educate students--these goals are largely set by the university as a whole, as stated for example in the university mission statement. Moreover, regular members of this university department's staff do not share offices. Nevertheless, at NL/GGU, department members did met regularly (albeit much less often) and over time they also have developed a shared linguistic repertoire that characterizes the larger organizational structure, including appropriate ways of communicating at this workplace. Before presenting the data, we provide in the next section crucial additional information about the background of the three companies in the study, which will situate them in the CofP context for our analysis.

ORGANISATIONAL BACKGROUNDS

BHJ Engineering Corporation

The multinational BHJ Engineering Corporation manufactures electronics. The Hong Kong branch employs 1000 people, nine of whom comprise the research and development (R&D) team. The R&D team is subdivided into two thematically distinct work teams (Team A and Team B), each with a team manager, both Hong Kong natives, among the nine. The two team managers are of equal status relative to each other, though one has seniority in the company, only by virtue of longevity. Of the engineers who report to the two managers, one is North American with a very low level of Chinese proficiency; the rest are Hong Kong natives with varying English fluency levels.

The nine engineers occupy a 30 x 30 square-foot office. There are partitions in the form of two-person cubicles, which are at chest height, such that the engineers can see each other either by looking up, by 'prairie dogging', or by turning slightly.

Staff at BHJ use email almost exclusively for two purposes: to alert team members of reports as they are posted to the server; and to make mass announcements of general interest. The latter are made sparingly, and usually only by management-- the only exception being one-time mass departure notices by usually lower-ranked employees leaving the company. Because the turnover in the company is fairly high, these "departure letters" comprise a substantial subset of the corpus from this company.

Public Company (Non-Profit)

The nonprofit organization we examined, Public Company, consists of six members, all women.

Four participated in our email study; their titles are, in descending order of hierarchy: CEO, Managing Director, Business Development Manager, and Office Manager. The members occupy one large room in an office space, with desks so arranged that all can see and interact with each other. As with the BHJ Engineering Corporation, despite workers' relative proximity and visibility to each other, email is an integral part of their communications, serving not only as a tool of efficiency, but also, as in many workplaces, as a record-keeping device.

NL at GGU

The NL Department at GGU University in Hong Kong is somewhat diverse. The data for this study was taken from two senior staff, one female Hong Kong native staff member and one male UK native staff member, both of whom have at some time held the title of head of department. The female staff member (Flo) is regarded as a friendly and simultaneously 'no-nonsense' leader with a 'power' persona; the male staff member (Dick) is regarded as a congenial and also politically savvy leader. Persons in the department describe workplace relations as congenial.

We now embark on a discussion of three types of linguistic phenomena of particular interest in the data: (1) general email content (particularly linguistic rituals); (2) email structure (particularly greetings and closings);[2] (3) email pragmatics (particularly humor). All three of these phenomena are of interest because they have the capacity to reflect both CofP norms and hierarchical relations in the electronic workplace environment. Within this CofP context, the effects of status in each CofP as reflected in the email data will be the primary focus of this paper.

LINGUISTIC RITUALS

Only one of the three organizations in our study, BHJ Engineering, showed heavy use of linguistic ritual. In fact, the email set from this company consists almost exclusively of rituals. It is not immediately apparent why this should be so; however, it is possible that it is an Asian (as opposed to Western) phenomenon (it is recalled that all of the members of the BHJ CofP in this study, save one, are Chinese).

Ritual Reporting Formulas at BHJ

The linguistic ritual of 'reporting' was found in the data set for the BHJ Engineering Corporation. Such emails at BHJ serve to alert other team workers of a document's availability on the server. It is also interesting that the body styles themselves are essentially identical, consisting of one to three brief sentences. Ultimately, the purpose of these messages is to alert team members of the posting of a report. ENGR 1 and ENGR 2 are Hong Kong natives; they begin with an imperative (a prompt to read the report) and end with a thanks, to mitigate the force of the imperative. ENGR 3, the North American, and also the newest addition to Team A, avoids the imperative (as is typical of native politeness strategy; see Rowe 2008) in favor of a stative construction ("Attached is…"). However, he adheres fully to the greeting and closing formula used by the team (see the next section). All this indicates that the group adheres to its CofP norms.

Example (1) provides a summary of the ritual reports of three engineers in Team A (ENGR 4 did not submit a report in the recording period). What is noteworthy here is the use of an unofficial 'template' style of reporting (see Zack 1993):

(1)

Body: style 'template', as below:

```
ENGR1
The discussion […] part is
changed. Please review again.
Thanks.
ENGE1
Please review and give comments.
Thanks.
ENGR1
Please review report and given
comments. Thanks.
ENGR2
Please review the following re-
port. Thank you very much!
ENGR3
Attached is my report on my flow
evenness of the […]
```

Ritual Departure Letters at BHJ

The linguistic ritualisation of departure letters is interesting in the BHJ corpus. First of all, the fact that there is a ritual of writing an email departure letter is itself noteworthy. There is an impression, confirmed by our primary BHJ informant as well as by native Chinese in the business environment, that these farewell letters serve a distinctly political purpose, namely, to dispel any potentially negative feelings about the departure or the departing employee, and to maintain good relations in spite of the departure.

In keeping with these goals, these emails consistently maintained the following formula, in the precise order outlined below-- only two of the elements, namely (v) and (vii), being occasionally omitted ((vii), clearly, when no holiday was immediately imminent).

Formula

(i) Announcement of leaving + departure date
(ii) Time frame of employment
(iii) Statement of thanks/appreciation
(iv) Compliments to the company/remaining staff
(v) (Wishes for the future)
(vi) Request for continued contact + new contact details
(vii) (Wishes for the upcoming holiday)

A canonical example from the corpus is provided in (2).

(2)

```
Subject: Goodbye my friends
Dear all,
This is my last day in BHJ.
Thank you so much for your help
and care over the past 4.3
years. And thanks BHJ for pro-
viding me the best environment
to develop my characters and
talents. I treasure every moment
I had in BHJ and wish all of you
and BHJ a prosperous future and
continuous success./Here is my
contact, pls keep in touch!
Email: xxx@hotmail.com
Mobile: [99999999]
Best regards and Happy New Year
[Joe]
```

It is also noteworthy that the time frame of employment (ii) is typically stated very precisely, complete with decimal expression. Furthermore, the statement of thanks (iii) and flattery (iv) are quite elaborate. These expressions are characteristic of Chinese culture, and they serve certain needs of positive face, such as the need to end relations on good terms, and the need to keep pathways to constructive professional relations open—in other words, “Do not burn your bridges.”[3]

Overall, ritual formulas seem among subordinates in this company to serve as a ‘safety net’: in the reporting procedure, as a way of efficient task management that avoids social elements unnecessary to the task at hand; and in the departure notices, by stark contrast, as a way of bridge-building in order to continue good social and working relations, to secure good recommendations from superiors, and possibly even to lay the groundwork for potential future business collaborations. As said earlier, the use of rituals – put into context-specific formulas-- when used uniformly particularly by subordinates in an organization or CofP appears to signal organizational coherence and adherence to organizational/CofP norms.

GREETINGS AND CLOSINGS

In the written context, particularly the email context, greetings and closings might be best characterized as *'micro-rituals'*. It is also noted in Millar (2009) that in terms of actual professional usage, there seems to be much fluctuation in use of email greetings and closings; Millar goes on to suggest, however, that (n)etiquette norms continue to prefer standard greetings and closings as a mark of formality in the professional setting. Greetings and closings are interesting particularly for their functional load, because "they can be powerful reminders of status positions" (Scarbrough-Thompson and Feldman 1986:686), particularly in the written mode. In face-to-face interactions, interestingly, the same greetings are typically used regardless of rank (e.g. *hello* and *hi* can be used between interactants of unequal status, and, albeit to a lesser extent, even the more casual greeting *hey*.) In email, by contrast, these greetings bear more status weight, for a number of reasons.

Firstly, as a written mode, despite playfulness that occurs in many computer-mediated contexts (see e.g. Rowe 2007), email context continues to carry some overtones of seriousness, especially when used in the professional context and particularly for work-related messages. Secondly, as a written mode, email greetings are persistent and visible, so they may remain in the recipient's consciousness longer than would an oral greeting. Just as emailers may sometimes 'obsess' over the wordings of incoming emails, re-reading some messages (especially of persons of different rank) over and over, emailers may also pay much attention to the formulation of outgoing messages, mindful of the possibility of a persistent record, and aware that written messages evoke a higher consciousness level in reading as well as in writing.

Furthermore, studies in human psychology (e.g. Monge and Kirste 1980) have noted a correlation between proximity and proclivity to greet. Thus, we would also expect that emailers sitting in the same room would, all else being equal, be likely to forego greetings than would emailers in their own separate offices. We will see that there are a number of factors (e.g. status/hierarchy and CofP norms among them) that have an impact not only on the form that greetings and closings take, but also the question of whether they occur at all, and in which contexts. These in our study represent a stronger influence than does proximity.

Greetings and Closings at BHJ Engineering

It is noteworthy that greetings and closings are identical across the BHJ reporting emails, the engineers using in each instance *Dear all* and *Best regards*, respectively. This is the case not only for regular engineers but also for the two managers. This means that whatever the group relations are, and despite the nature of the content of the body of the emails, there are no status effects evident in the greeting and closing formulas: in other words, members adopt a more egalitarian format for greetings and closings. In so doing, the group members adhere not only to their own CofP norms, but also to a rather formal overall style template that is considered 'good form' in the Hong Kong professional world at large. This is despite—or indeed perhaps by virtue of-- the fact that these emails are pro-forma messages.

Greeting and Closing Formulas: Public Company

While there were no elaborated linguistic rituals of the type found in BHJ, what was noteworthy in the Public Company corpus was an apparently strategic or at least revelatory use of role- or rank-specific greetings and closings. In this corpus, greetings and closings were emailer-oriented, i.e., addresser-specific and more pointedly, specific to the precise hierarchical role occupied by the speaker. Each emailer's style was consistent across the board, and seemed to follow an inverse pattern with regard to hierarchy: the CEO, with highest rank, used the most informal style, followed by the managing director, business development manager, and office manager, all in descending order of rank and correspondingly ascending levels of formality. A summary of the CEO's greeting and closing is shown in (4) and (5) below:

(4) CEO

Greetings

```
No name, no salutation (usual
pattern; names occur message-
internally when giving orders)
Name but no salutation, no
punctuation (audience design
and/or to disambiguate to/cc
field)
Vocative Both as greeting (1x)
```

This pattern fits the CEO's bald on-record directive pattern as well.

Closings

```
Signature file only (usual pat-
tern)
Thank you + signature file
Thanks + first initial + signa-
ture file
```

(5) CEO, example

```
From: S[xxx] L[xxx]
To: F[xxx] B[xxx]
Subject: FW: Meeting with R[xxx]
S[xxx]
Can you work on this?
Ms S[xxx] L[xxx]
Founder & CEO
www.xxx.org.hk
[company motto]
```

The pattern from the Managing Director is slightly more formal, as (6) and (7) show:

(6) Managing Director

Greeting:

```
Name but no salutation and no
punctuation
```

Closing:

```
Name + signature file
Thanks + name + signature file
(usual pattern)
Best regards + comma + signature
file
```

(7) Managing Director, example

```
A[xxx]
Sorry for the delay[…] Here are
my comments. Please ensure […]
Thanks
L[xxx]
F[xxx] B[xxx]
Managing Director
Office: 9999999
Mobile: 9999999
```

```
http://www.xxx.org.hk
[company's motto]
```

The greeting and closing pattern of the Business Development Manager, as in (8) and (9) is even more formal:

(8) Business Development Manager

Greetings

```
Name and comma (usual pattern)
Hi [name] + comma (once)
Hi- (no name) (once)
```

Closings

```
Signature file only
Name + signature file
Thanks + full stop + signature file
Best + comma + signature file
```

(9) Business Development Manager, example

```
S[xxx],
I think you've got another intern to work with us in coming months? Here's a CV that you may want to consider.
Best,
B[xxx] B[xxx]
Business Development Manager
Office Tel: 9999999
Mobile: 9999999
http://www.xxx.org.hk
[company motto]
```

However, the formality increases slightly when negative information is relayed, as in this 'notification of absence due to illness' communication (10) from the Business Development Manager, which in this case is pragmatically distinct, using *Dear, best regards,* and the formal variant *as*:

(10) Business Development Manager: notification of absence due to illness

```
Dear S[xxx],
Sorry I was unable to come to work today as I'm ill […]
Best regards.
```

Otherwise, increasingly higher levels of formality continue to correlate with lower status, as seen with the communications from the Office Manger (11):

(11) Office Manger

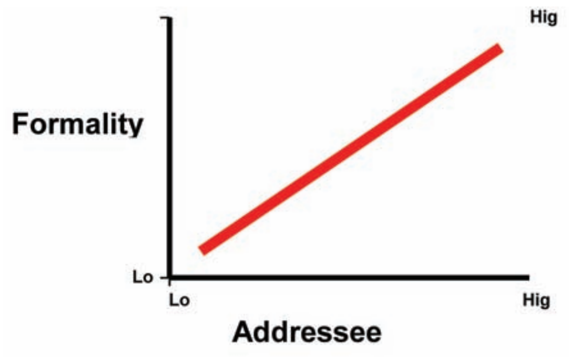
Greetings

```
No greeting (1x)
Dear [name] + comma (1x)
Hi [Name] + comma (usual pattern)
```

Closings

```
Best regards + comma (usual pattern)
Thanks + comma
No closing (1x)
Hi S[xxx],
Petra M[xxx] of xxx (ex-colleagues of Ivy). She would like to speak with you and she has sent you the e-mail.
Her number: [9999 9999]
Best regards,
B[xxx]
B[xxx] C[xxx]
Office Manager
Tel: [9999999]
Fax: [9999999]
http://www.xxx.org.hk
[company's motto]
```

Figure 1. The relation between formality level and addressee rank in Dick's emails



It becomes apparent that in Public Company an inverse relation obtains whereby the higher the status of the email writer, the lower the level of formality, regardless of the status or identity of the addressee, as seen in Figure 1:

This is in contrast with the greeting and closing pattern of BHJ, which is the same across the board regardless of status, suggesting that for BHJ, organizational rank is not strongly signaled in the usual ways. This more egalitarian style among lower management (the team managers) and their subordinate team members may reflect 'proletariat' solidarity in the face of high-ranking bosses in this largely Asian company, where loyalty to the company superstructure is communicated as being of the greatest importance. The particular structure of the pattern at Public Company, on the other hand, reveals a negotiated complex of CofP-related norms that tacitly implies a link between individual member rank and communication practices.

Greetings and Closing Formulas: NL/ GGU

Flo at NL/GGU also shows hierarchy-linked greetings and closings, but of a different nature, related to the addressee. Flo's greeting and closing pattern appears to be to begin with a name set off by a comma, and end with her first name as signature, as in (12)-(14):

(12) Flo's greeting and closing pattern with her graduate assistant, example

```
H[xxx], I'm leaving for London
tonight and won't be back un-
til early August […] Have a good
summer. Flo
Quoting H[xxx]:
>Dear Flo,
>
>Thanks very much for this. […].
No response from
> others regarding the art in-
stallation yet….
>
>Cheers,
>H[xxx]
```

The same holds true for Flo's correspondence with an administrative assistant:

(13) Flo's greeting and closing pattern with administrative assistant, example

```
Thanks, Y[xxx], for letting me
know. I'm copying our exchange
to […]. Have a good vacation.
Flo
Quoting Y[xxx]:
>
```

```
>Dear Dr. Leung,
>
>Many thanks again for your kind
assistance on this matter […]
>
>Best regards,
>
>Y[xxx]
```

(14) Flo's greeting and closing pattern with peer Sam

```
[Sam], I'll be in tomorrow morn-
ing for the BOE. Lunch tomorrow?
Flo
Quoting [Sam]:
>
>Flo, are you leaving tomorrow?
Would it be possible to >have a
drink today if you're around? or
lunch tomorrow? >[Sam]
```

Sam, like Flo, is one of the senior members of academic staff, and uses a pattern different again from that of the graduate student and that of the secretary. In (14), Flo's greeting and closing pattern with her peer Sam is consistent with her pattern thus far, indicating that Flo, like the staff at Public Company, has a relatively uniform style, a style unique to her that does not appear to be heavily influenced by any particular organizational norm. Moreover, the three foregoing emails were written to staff of differing status (a post-graduate student, a secretary, and a senior member of academic staff); thus it appears from the emails collected that addressee rank may play a diminished role for this participant.

Despite her generally consistent style, Flo does show some variation in her pattern, in her use of the closing word *Best.* Here the interlocutor is a junior colleague Cal who does not yet hold his PhD (and perhaps importantly, is not her PhD advisee and not a regular member of Flo's department), but who guest-teaches a course in her department:

(15) Flo's pattern with a junior colleague

```
Cal, hi, I'm sure things will be
sorted out […]
Best Flo
Quoting Cal:
>Hi again Flo,
>
>Thanks for getting back to me-
[…]
>
>Warm regards,
>
>Cal
```

It is possible that Flo reserves the closing *Best* for congenial relationships outside of her immediate departmental network. This is supported by the use of *Best* in the following email exchange with her former PhD student Tommy Day, who has meanwhile recently obtained his PhD and has acquired an assistant professorship at a neighboring university in Hong Kong (which entails that he is no longer a member of Flo's immediate departmental network). Note here as well the use of the greeting *Dear*:

(16)

Dear Tommy
I still haven't heard from RGC […] Thank you.
Best
Flo
Quoting Tommy Day:
>Dear Flo,
>
>Please find attached my file on Ong's Flexible Citizenship.
>>Cheers,

>Tommy Day

But there is apparently more at play. Example

(17) shows that a secretary, Alice, in Flo’s own department exceptionally signing off with first and last name on a form-letter mailing, results in a more formal pattern by Flo than the one that she typically uses with this secretary:

(17)

```
Dear Alice,
I’m teaching [xxx] in the 1st
semester 2007-8. But I can’t
access the link to the webpage
[…]
Regards
Flo
Quoting Alice:
>Dear Dr Leung,
>
>The course selection period
will start […]
>
>Thank you.
>
>Regards,
>Alice Cho
>NL Department
>
```

In contrast to the foregoing emails, Flo’s pattern in (17) appears to constitute accommodation to addressee pattern. And it should also be noted that the former PhD student in (16), Tommy Day, also includes his surname, a marker of formality. Although one would expect Flo to use a more informal style with him, his use of the formal first-name + surname signature pattern (his usual style) is a more crucial determinant of Flo’s pattern—triggering formality effects on her part-- than is his ‘network’ membership: because Flo does not sign off with her surname, but does match the rest of Tommy Day’s pattern. This ‘mixed’ greeting and closing pattern thus seems to indicate that Flo’s style-mixing results from a combination of relationship (‘network membership’) and accommodation to a more formal trigger, in this case, Tommy Day’s surname use and use of the greeting *Dear*. This is supported by Flo’s more formal greeting-closing style in her response to the secretary’s form letter (17), when she otherwise uses her ‘regular’ pattern with this individual:

(18) Flo’s pattern with the administrative assistant

```
Alice, can you please post the
attached file[…] Thank you. Flo
Quoting Alice:
>Dear Dr Leung,
>
>I have one more webpage[…]
>
>Regards,
>Alice
>
```

The example in (18) shows that in the absence of the addressee’s last name in the initiating message, even with the same secretary, Flo reverts to her canonical style. Flo’s specific greeting and closing pattern seems to be the way in which she expresses collegiality on an individual basis. It appears then that the initiator’s use of full name signature triggers Flo’s use of the more formal *‘Dear’* greeting, although the *Dear* greeting does not itself serve as a trigger. We may term this ‘symbolic’ accommodation, since the trigger’s form (here: surname) differs from the form of the item it triggers (here: *Dear*). Otherwise, Flo uses a simple and informal first name greeting. This indicates that, all else being equal, Flo quasi-accommodates to the style of her interlocutors, based on their closing pattern, even where they are junior, meaning that for Flo, network affiliation is more highly valued than rank. However, while affiliation remains unchanged, the interlocutor’s style sometimes shifts, which results in an indirect or symbolic shift by Flo. This may

Table 1.

RANK of addressee	PATTERN displayed by Dick
Peers (Assoc. Profs, Full Profs, Chairs)	Name/0/Dear [first name] B(b)est wishes/Thanks/ 0 [D…]
Top to middle (Asst. Profs, PDF, RAP)	Hi [name] 0/cheers/ Thanks again [D…]
Top to bottom (Office staff):	Hi/Dear [name] 0/thanks/cheers Dick
University-external officialdom	Dear Ms. F[…] best wishes D[…] T[…] Head School of [X…] The University of [GGU]
University-internal school-external officialdom	Dear all Thank you for the help yours D[…] T[…]

imply that relational 'style accommodation' is in turn possibly more important to Flo than is 'network affiliation.'

Contrasted with Flo's greeting and closing pattern is the pattern used by Flo's colleague Dick. With Dick, the greeting and closing pattern is consistently audience-oriented; however, unlike Public Company, the pattern appears to be based on the rank of the addressee (rather than on his own rank, cf. Public Company), and does not appear to reflect accommodation in the usual sense. Rather, it appears to be more along the lines of referee design (Bell 2001), whereby Dick seems to 'claim co-membership' of the addressee's rank by using a style that can objectively be seen to match the addressee's rank and, accordingly, the style canonically associated with that rank (essentially referee shifting), rather than the style of the individual addressees themselves. Table 1 summarizes Dick's pattern:

For example, the most marked informality effects (lower case, and lack of greeting/closing) are seen in correspondence with postgraduate students, e.g. with advisee Mindy:

(19) Dick's correspondence with postgraduate advisee

```
ok see you there
dick
--Original message—
Dear Dick - Just booked lunch
at 12.30 in the [College] din-
ing room. Hope it won't rain by
then.
Mindy
```

One addressee of 'mixed' status (webmaster, with a PhD in another field, having previously worked in academia but currently working in industry) seemed to motivate a fluctuation in Dick's pattern, such that the greeting/closing pattern shifts in ad hoc fashion from one message to the next between the 'peer' pattern and the 'top to middle' pattern, while the interlocutor's greeting and closing pattern remained constant. This may indicate that when status is ambiguous, Dick's pattern fluctuates.[4] Ultimately, then, Dick's pattern of greeting and closing informality is directly proportional to the rank of the addressee, as seen in Figure 1:

This is markedly different from the Public Company CEO, where formality is linked with addressee status, and there, inversely so. In both cases, it seems an indicator of the e-mailer's style rather than of any organizational norms. One may have expected Dick's style to be more formal with graduate students, among whom he has a professional 'face' to show, and more familiar with his peers. For Dick, however, collegiality seems to be expressed largely by referee design, the referee, in his case, being the group to which his interlocutor belongs.

HUMOR

Workplace Humor

Several positive functions of humor in workplace contexts have been identified. Findings from a myriad of workplaces ranging from a police department (Pogrebin & Poole, 1988) to a mental hospital (Coser, 1960) and a hotel kitchen (Brown & Keegan, 1999) emphasize the compatibility of humor and "serious" business transactions. In all these workplaces, members regularly employ humor to deal with the various demands and challenges of their everyday working life. However, these studies – with only a few exceptions (e.g. Rodrigues and Collinson, 1995) – have focused on humor in spoken interactions, while our aim is to explore the ways in which humor was used in the emails across the three different CofPs.

Email as Written Humor

One of the problems of exploring the use of humor in emails is the identification of humorous speech events. Identifying humor is often a problematic undertaking, in particular for outsiders who are not fully familiar with the discursive practices that characterize the ways in which humor is typically performed in these CofPs. Moreover, since our focus is on email rather than on spoken interactions, we—like our emailing informants-- cannot draw on prosodic, paralinguistic, nor indeed paratextual features (cues) in identifying and interpreting potential instances of humor. In order to minimize the impact of these issues, several measures were taken: firstly, in identifying humorous speech events we primarily relied on contextualization cues, in particular, the response a potentially humorous email received. And secondly, once we had identified a range of potential instances of humor we queried our participants in order to understand whether (and why) they considered a particular remark to be humorous; this enabled us to gain a better understanding of the ways in which humor was typically perceived by participants, and it also provided interesting insights into the discursive practices that characterize the various CofPs.

It stands to reason that researchers, as third parties, have difficulty identifying email humor, particularly since e-mailers themselves have difficulty expressing and interpreting email they receive from both known and unknown correspondents. Some types of humor, such as sarcasm, are particularly difficult to express (Sarbaugh-Thaompson and Feldman 1998:686) and accordingly, difficult to interpret. The most typical type of error in email humor seems to be in over-interpreting 'innocent' comments as sarcasm. For this reason (among other reasons, such as congeniality, etc.), e-mailers often use emoticons to disambiguate messages so that humor or sarcasm are correctly interpreted. Moreover, the more familiar emailers are with one another, the less likely they are to need to use clarification in their messages, and the more likely they are to feel comfortable using humor with these interactants. In particular, the more that humor is a feature of two interactants' offline relationship, the more we would expect it to occur in their online relationship-- in some cases, as an online extension of their offline interactions and of their offline relationship in general (see e.g. Rowe 2007).

Moreover, if it is true, as Sarbaugh-Thompson and Feldman (1998:693) suggest, that email decreases the need for "co-presence", and accordingly, reduces the chances for casual conversation, then we would expect that persons emailing each other in the same room would not likely use humor and casual conversation. While this appears to be the case for some groups (e.g. Public Company in our study), it does not hold true for others, e.g., the BHJ engineering group, who uses email as a complement to oral humor in the room. Perhaps it is safer to say, as indicated earlier here, that email can provide an extended environment for additional interactions of the same type found in the rest of the relationship contexts (e.g. face to face, telephone, etc.). In fact, it appears that CofP norms--here, the norms of the individual working group--are probably better determinants of whether or in which contexts casual or humorous conversation takes place, than is, for example, the issue of co-presence, as described above.

We now give a brief account of the humor in the emails and then look at the specific ways in which members of the three CofPs construct their humor in this context. It is not surprising that these workplaces differ substantially from each other with regard to the amount of humor found in the email as well as in the style and type of delivery (see also Holmes & Marra 2002; Mullany 2007; Schnurr 2009). As has been widely suggested, some of these differences can be explained by reference to the discursive norms that characterize the discursive practices negotiated among members of CofPs and can be seen as reflecting and responding to distinctive aspects of the workplace culture at each of the three workplaces.

Humor at BHJ

An example of the humor characterizing the emails collected at BHJ is shown in (20), an email sent by MNGR1 in response to an earlier email that he and the other members of his team received from MNGR2, the manager of another working group.

(20) Email from MNGR1 to MNGR2

```
RE: free lunch
It is not only from MNGR1.
Please also empty your stom-
ach for our Great Leader MNGR2.
Since he give you a treat on
Friday lunch too
Quoting MNGR2:
>Dear colleagues,
>
>Looking forward to a free lunch
from MNGR1?
>Don't panic. The chance comes
and it is this Friday.
>
>Please be prepared with an
empty stomach.
>
>Regards
>MNGR2
```

MNGR2's initial email is an informal invitation to members of both his and MNGR1's team to meet for lunch on Friday. However, instead of sending out a formal invitation, MNGR2's email is characterized by a high degree of informality and humor. Particularly noteworthy is the way in which he teases MNGR1 by claiming that MNGR1 will settle the bill by himself[5]. However, in his reply to MNGR2 (which again is sent to the entire team) MNGR1 humorously denies MNGR2's announcement by making it clear that both he and MNGR2 will share the bill. He communicates this message by continuing the humor (initiated by MNGR2). He jokes with his colleague MNGR2 by referring to him as 'Great Leader'[6] despite the fact that MNGR2 is slightly junior to MNGR1, and elaborates on MNGR2's humorous comment to 'be prepared with an empty stomach', a dynamic back-formation of a stative, whereby 'empty your stomach', now acquires a humorous second meaning which is pragmatically opposite to the original one: rather than suggesting that the others come hungry (i.e. with 'an empty stomach'), MNGR1 effectively suggests to 'throw up' before the lunch. Although MNGR1 is not a native speaker of English, we were ensured by our primary informant that this pun was intentional, reflecting an integral aspect of the negotiated repertoire among staff members. Wordplays like this one, in particular where the non-native staff members pretend to be not very proficient in English, are performance events, where Chinese English is exploited as a means of self-deprecating humor.

The content and style of this email provide interesting information about the workplace culture of BHJ. In particular, the ways in which MNGR1 and MNGR2 conjointly construct humor by teasing each other indicate solidarity.[7] In particular, MNGR1's response (particularly his use of humor) reinforces solidarity among interlocutors while at the same time conveying a humorously critical message (namely "rebuking" MNGR2 for sending out this email, which would have normally been MNGR1's responsibility as the more senior manager, and also reminding MNGR2 of his duties with regards to sharing the bill). And due to its inherent ambiguity, teasing humor seems to be an effective tool for achieving these two functions. In contrast to the relatively frequent occurrence of humor in the BHJ data, the emails that we collected from Public Company, the non-profit organization, only contain a single instance of humor.

Humor at Public Company

(21) Email humor from the CEO

```
This is from our friend Pete.
Not sure that X-ers put their
lifestyle first!
```

In this email Serena, the CEO, uses humor to express her frustration about one of their clients. She forwards an email she has received from that client (in which he presumably makes some positive comments about the importance of lifestyle at his company). However, Serena clearly does not agree with Pete on his judgments, as her comment accompanying the forwarded message shows. At the time when emails at Public Company were collected, members of staff were primarily concerned with finishing their upcoming publication on living and working in Hong Kong, and Serena's critical remark should be understood in this context. And it appears that using humor, or more specifically, a sarcastic remark to one of her colleagues, provides a valuable means of venting her frustration. In particular, calling Pete "our friend" clearly bears has a sarcastic tone. This interpretation is further supported by the second part of the message which explains Serena's discontent by stating that she does not agree with Pete's perceptions.

The fact that there was only one instance of humor in the emails we collected at this workplace is consistent with the style in which its members typically communicate with each other via email and also face to face (see Schnurr forthcoming, and Schnurr & Mak forthcoming for a more detailed discussion): the emails from its management are typically relatively direct and contain only very little relational content (which is further reflected in the frequent absence of closings and greetings). One of the participants commented on this phenomenon in the interviews by explaining that their emails primarily function as a follow-up to a face-to-face interaction. Since members of this workplace work together in the same open-plan office, they often visit each other at their desks to discuss work-related issues. And it is during these face-to-face encounters that most of the relational work takes place rather than in their emails. In this email, then, humor functions as a valve to release some of the frustration and negative experiences with particular clients.

Humor at GGU

Humor in this cathartic function was also frequently employed by one of the members at GGU. Interestingly, at GGU, while Flo, one of our participants, did not use any humor in the emails she provided, Dick, the Head of School at GGU, used a substantial amount of humor in his submitted emails. Most of Dick's humor was more subtle and more refined than that displayed in the emails collected at the other workplaces, much of it similar to that of Public Company in that it primarily functions as a cathartic strategy to release tension and to express frustration.

Example (22) was sent by Dick to his academic colleagues at another Hong Kong university who had agreed to volunteer in vetting a large number of academic submissions in order to award a major prize.

(22) Email from Dick to colleagues

```
Dear hon screeners
could you possibly guesstimate
how many hours this process
took/ is taking? Hugh and I feel
that we should ask for payment
next year….
```

The humor in this email derives from the address term "dear hon screeners", *hon* being an abbreviated form of "honorary" which refers to the unpaid nature of this task. It also exaggerates the importance of the screening process, while at the same time reinforcing solidarity among Dick and his colleagues. Similar functions are also performed by the use of the verb "guesstimate" (a blend of "guess" and "estimate"). Moreover, Dick's humorous suggestion to ask for pay next year enables him to express his frustration with the process (which demands more of his time than he originally anticipated) while at the same time it reinforces solidarity and enhances group membership with the addressees. This relational function is further emphasized by the use of the inclusive pronoun "we" and by signaling that Dick is also one of the members of the vetting committee who is affected by this process.

Example (23) is an email written by Dick to his long-time colleague and friend K in which he uses humor to vent his frustration. At the time Dick wrote the email, a new online performance review for staff had been initiated-- a process that demanded a substantial amount of additional work for Dick, such as attending workshops and familiarizing himself with the system so that he could communicate the changes and procedures to other staff. One of the tasks that Dick, as Head of School, was required to do was to assign a reviewer to each member of staff.

(23) Humorous email from Dick to a close colleague

```
K[..] I tried to input reviewers
but the system is not up yet, at
least as far as I can tell in my
shuffling along the crepuscular
corridors of the [performance
review] – I felt a slight spike
in the blood pressure but will
try to look into this afternoon
D[…]
```

This email is a paradigmatic example of the ways in which Dick uses extended sections of humor in order to vent some of his frustration with the bureaucratic systems of the university (see also Schnurr & Rowe 2008 for a detailed discussion of subversive humor in this context). In (23) Dick complains to Karl about some of the problems he is experiencing with the online system of the performance review. After informing Karl about the fact that the online system does not yet allow him to enter the names of the reviewers, Dick incorporates a humorous metaphorical anecdote to ridicule this situation. In particular, his humorous description of his (unsuccessful) efforts to understand the system as "shufflings along the crepuscular corridors of the [performance review]" and the fact that he "felt a spike in the blood pressure" describe Dick's frustration with the system while making fun of the situation. He skillfully employs the humor as a means to communicate this frustration and annoyance of having to deal with these issues (rather than focusing on other aspects of his work). Interestingly, in the corpus of emails from Dick, this kind of metaphorical sarcastic humor with a critical edge is typical for his interactions with Karl. In these emails, these two academics regularly exploit humor as a way to express their frustration and to challenge some of the bureaucratic norms and processes that permeate their workplace, using humor as a means to resist the dominant discourse of their organization (see Schnurr & Rowe 2008).

SUMMARY

Email is used in widely varying ways across the three communities of practice we investigated, namely: In Public Company, email serves mostly as a record-keeping device. At GGU, it serves as time-saver as well as an outlet for play and humor. At BHJ, it serves an intermediate function, as notification of activity (e.g. to a report having been uploaded to the server) as well as for humor, particularly in the context of event notification.

The question that has interested us most in this investigation is whether generalizations can be made as to the email practices in the entirety of a workplace. For example, we had initially expected greater formality in the university setting, not only because it is a typical 'H' domain, but also following Baron's (1998) predictions on 'professorial style' spreading to the range of CMC environments. We predicted a slightly lower level of formality in the engineering corporation, and a greater degree of informality in the non-profit. However, the situation was much more complex, and workplace type and nature alone seemed to have no particular effect on email practices.

The next question was whether something about the particular workplace CofP itself in each case affected email practices. Ultimately, we were able to determine that minimally, email practices were often very individual based; but because the individual workplace itself (its atmosphere, makeup, etc., more so than the nature of its overall 'mission' or goals) appears to have at least some affect, it appears that email practice is determined more by the individual as a function of the organization. That is, in the emails that we collected, the individual's influence seemed to be primary; community of practice effects were secondary, and certainly some interpersonal accommodation effects did also obtain. Crucially, rank played a critical role, more importantly for the superiors, who were pro-active in their differentiation, than for their subordinates.

One area of prediction made by Sproull and Kiesler is that email should lead to the flouting of social convention, particularly in the form of attenuation of the work/play boundary (1986:1508). This prediction is indeed borne out by managers in two of the workplaces: BHJ Engineering, and GGU University. And the manager of Public Company, though she does not stretch the boundaries of work and play, does flout canonical writing conventions, displaying a style that some research on norms (e.g. Millar, 2009.) indicates may not typically be associated with CEO-level management. Accordingly, while many studies show that for some interactions, technical features like speed clearly have a profound effect on the nature and form of email communication (see e.g. Rowe 2007), other studies (e.g. Sproull and Kiesler 1986:1511, also Rowe 2001, 2007) show that the role of the individual and the nature of the interpersonal communication itself may, in other contexts, be primary.

Furthermore, a substantial amount of humor cannot be explained solely by reference to normative ways of interacting that characterize participants' workplace culture or their CofPs (such as Dick's frequent use of humor vis à vis Flo's more serious tone) and seems to be best accounted for by idiosyncratic (i.e., individual-specific) factors. Overall, we found that the humor in the emails collected in the three workplaces was not only influenced by distinctive aspects of the different workplace cultures or the discursive norms developed among members of working groups, but was also substantially influenced by a range of personal and interpersonal factors.

Ultimately, it seems that workplace email style is influenced not only by specific CofP norms (viz. the differences workplace-internally), and not solely by the individual (viz. high individual-internal variation), but by the individual as a function of the specific workplace, as indicated by the style patterns demonstrated here. Specifically, the rank of the individual was crucial in determining stylistic variation, even when those effects played out in strikingly different ways. Clearly, more research is required which examines email in a wider range of workplaces in order to support or challenge these claims, and moreover, the precise role of other macro (e.g. ethnic) cultural influences is yet undetermined. The patterns in our corpus anyway seem to indicate that these, too, may play a role; we leave it to future research in this area to take up this challenge.

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KEY TERMS AND DEFINITIONS

Community of Practice: A group that interacts regularly and has a shared discoursal and experiential repertoire (Wenger 1998) and a common goal.

Email: electronic mail

Greetings/Closings: conversational openings and closings, especially in writing

Hierarchy: rank, status

Humor: here: the linguistic study of oral or written humor

Linguistic Accommodation: The influence of one person's linguistic style on the style of another person

Rank: hierarchy, status

Status: professional standing or level of achievement

Workplace Communication: the study of language in the workplace; the style of use of language in the workplace

Workplace Culture: the knowledge and experience that enables people to function effectively at work (Holmes 2002)

ENDNOTES

1. The names of participants in the study have also been anonymised.
2. While technically greetings and closings are part of linguistic ritual, in the email context, they are more properly part of structure, hence their treatment under that rubric here.
3. Typically it is accepted that Chinese culture is more oriented to negative face, but in ceremonious occasions the relevance of negative face is naturally diminished and positive face needs are foregrounded. In Chinese culture these are addressed with equal fervor mutatis mutandis for negative politeness strategies in their relevant contexts.
4. The fact that the webmaster is not a member of the CofP may be a further factor in the fluctuation.
5. Note that it is common in Hong Kong workplaces for the most senior person—in this case, MNGR1- to treat the others for lunch.
6. In so doing, he also invokes the totalitarianism frame (see Lakoff 2006), since the term 'Great Leader' is a reference to Chairman Mao.
7. The style displayed in these emails can be classified as 'nipping' (see Boxer & Cortes-Conde 1997; Schnurr 2009), characterized by friendly banter with a slightly critical edge.

Chapter 3
"Pathfinding" Discourses of Self in Social Network Sites

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ABSTRACT

It has been argued that social network sites (SNSs) constitute a cultural arena which gives rise to the processes of self-presentation, impression management and friendship performance (boyd & Ellison, 2007). Based on the tenets of discourse-centered online ethnography, this study investigates how identity can be discursively generated, reproduced and co-constructed within the genre of SNSs, taking as a case in point Pathfinder, a Greek portal which incorporates social networking features. The tendencies suggested by interviewing a Pathfinder web developer as well as by a pilot survey on social networking are traced in a popular Pathfinder networker's profile. Adopting Zhao et al.'s (2008) sociological model of implicit and explicit identity claims on SNSs and leaning on critical discourse analytical tools (Fairclough, 2003; Reisigl & Wodak, 2001), the chapter explores how the online self can be cemented and disseminated in narrative, enumerative and visual terms via an armory of linguistic and multimodal strategies. In this fashion, SNSs should not be approached as a sheer technological artefact, but as a "space for growth" (Turkle, 1997) that encourages users to have agency shaping collaboratively their own linguistic, social and psychological development.

INTRODUCTION

During summer 2007, when I started crafting my profile in *MySpace*, it had not even occurred to me that social network sites[1] (SNSs) could ever receive such sustained interdisciplinary attention. Several months later, an unusual experience entered my subconscious only to bring to my notice the omnipotence of Web 2.0[2] practices in everyday life and their high potential to monopolize the academia henceforth. I dreamt of one of *MySpace* "friends" with whom we just share similar music interests and occasionally exchange comments. Still, I am totally unaware of her bodily presence; on no account have I met her

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face-to-face before and, in all probability, I am never going to. According to the dream scenario, we were supposed to attend an algebra course and she was overwhelmed by anxiety and hesitance because she had not prepared her homework. At the end of the lecture, she fetched an enormous king cake as a special treat to everyone present. When I informed my "friend" via *MySpace* personal message facility about the content of the dream, I received the following startling answer: "You saw aspects of myself; I am generally a shy, reluctant while generous person".

Yet, identities in SNSs do not exist in a vacuum, let alone in abstract dreams. Conversely, they are fleshed out because one "type[s] oneself into being" (Sundén, 2003, p. 3), that is by virtue of language. Being trained as a linguist, with a background in discourse analysis and stylistics, I decided to explore the online discursive performance of self in SNSs. The choice to work on this topic was fueled—apart from the dream—by two overarching reasons. First and foremost, as Crystal (2001, p. 237) and Thorne (2008, p. 307) have pointed out, the Internet does not simply constitute a technological artefact; it is primarily a social fact which has textual language use at its very heart. Secondly, public discourse, and therefore Internet discourse, is reckoned to be inherently constitutive of identity (Scollon, 1997, p. 39). Web 2.0 modes of interaction in general and SNSs in particular were conceded an ideal context to look at as they mirror, support and change usual practices, especially with reference to how people reveal aspects of themselves and connect with others (boyd & Ellison, 2007, p. 224).

The launch of SNSs entailed a new organizational framework for online communities, and with it an appreciable, vibrant fresh research agenda (boyd & Ellison, 2007). In concurrence with Beer (2008), "we are at a crucial moment in the development of this field of study" (p. 516), in view of the fact that its parameters and scope are still nascent and more work needs to be conducted so as to comprehend this online phenomenon in its entirety. Turning now to previous scholarship on social networking platforms, the lion's share almost exclusively belongs to the disciplines of media and cultural studies, information science, sociology and psychology. With respect to eminent documented language-focused studies on SNSs, Herring et al. (2007) and Das (2007, 2008; see also this volume) are more sociolinguistically-oriented in their research exploring the robustness of non-English languages in the topologies of *LiveJournal* and *Orkut* respectively. Larsen (2007), on the other hand, examines identity construction in *Arto*, a Danish SNS, adopting Scollon's (2001) mediated discourse analytical framework, which pays attention to social actions in lieu of sticking to written text or language per se. Informed by corpus linguistics approaches, Thelwall (2008a, 2008b) has published two ground-breaking studies: the first analyzes swearing among British and American users of *MySpace* while the other compares word frequency statistics of English Live Spaces to the British National Corpus and UK university websites. What is more, he has tackled with the language of *MySpace* comments addressing spelling variants and "typographic slang" (see Thelwall, 2009).

With these in mind, the purpose of this article is to reflect upon how identity can be discursively generated, reproduced and co-constructed within the genre of SNSs, taking as a case in point *Pathfinder*, one of the most thriving Greek portals, which incorporates a SNS service. My analysis is situated in the realm of work of Critical Discourse Analysis (CDA) scholars such as Wodak (2001b) and Fairclough (2003) who have made eloquent appeals to the discursive construction of identities.

The chapter is divided into four parts. The first provides some essential theoretical backcloth to the discussion drawing upon theories from cultural studies and sociology. The second section moves toward methodological issues describing the data and the processes involved in their collection. Thereafter, the study is dedicated to the presentation and interpretation of the sampled information. I then conclude with a discussion of the caveats that researchers should keep in mind when studying contemporary SNSs cultures as well as implications and suggestions for future investigation.

THE "PROFILE" OF SOCIAL NETWORK SITES

SNSs belong to that kind of digital media production that is interactive and digitally distributed by dint of the Internet or the World Wide Web, namely new media (Herring, 2004a, p. 47). Through this lens, SNSs are defined as web-based services which enable users to (1) create a public or semi-public profile within a circumscribed system; (2) articulate a list of other users with whom they share a connection, the so-called "friendship", and (3) view and browse not only their list of connections but also those made by others within the system (boyd & Ellison, 2007, pp. 211). In accordance with this definition, the first recognizable SNS was *Sixdegrees.com* (sixdegrees.com), launched in 1997 and shut down in 2000.

SNSs have pioneered a new route to networked practices given that it is users themselves who determine and shape the service content and style (Zikos, 2007, p. 124). The profile page functions as their personal web page and comprises information ranging from their date of birth, gender, hometown, religious and political beliefs, and current mood to their favorite films, quotes and activities in their leisure time. Moreover, users are capable of designing the appearance of their page by adding graphics, photos, music and videos (Livingstone, 2008; Ofcom, 2008).

The recent widespread popularity of SNSs has been propelled by an unparalleled combination of factors (Ofcom, 2008). In the first place, increased connection speeds along with broadband availability allow limitless Internet access even for domestic use. The individuals that feel confident in using information and communication technologies are multiplied in geometric progression due to their daily exposure to computer-mediated modes of communication convoyed by the acquisition of Internet literacy. In tandem, SNSs favor unsophisticated, user-friendly programs in designing. What is more, they are chiefly based on managing interpersonal relationships and connections (Dwyer, 2007) rather than on merely sharing interests (boyd & Ellison, 2007, p. 219). Finally, a plethora of extra applications, such as email, micro-blogging, instant messaging, quizzes, polls, games, and photo collages have enhanced the versatility of SNSs.

In line with Schau and Gilly (2003, p. 392), the initial impetus for constructing a personal web page, and therefore a profile page on a SNS, can derive from (a) a triggering event, (b) a desire for personal growth, and (c) advocacy. A triggering event refers to either a crucial personal or professional change (graduation, promotion, marriage, parenthood), or an external prompt (administrative mandate, social prodding). On the other hand, a desire for personal growth may involve an educational achievement (mastering of a technology), professional and personal self-promotion (search for clients, find friends/a date) or an exercise in self-discovery. The third reason, advocacy, embays the cases where users pay homage to a favorite artist, artistic work or social cause.

Consistent with their incentives, behaviors and attitudes, social networkers fall into five broad groups:

- Alpha socializers: users who log in SNSs in intense short bursts to make new acquaintances, flirt and entertain themselves.
- Attention seekers: users who long for attention and comments from others by posting photos and editing their profiles.
- Followers: users who join SNSs to keep up with what their peers are doing.

- Faithful: users who join SNSs to revive old friendships from school, university or previous jobs.
- Functional: single-minded users who use SNSs for a specific purpose.

(Ofcom, 2008)

By utilizing the medium of SNSs for one of the aforementioned reasons and automatically belonging to the respective group, users in essence opt for displaying their status and distinction, their identity in one word, at a particular time and with a particular understanding of the web public (boyd, 2004; Liu, 2007, p. 252).

I shall now carry on to the very concept of identity and its association with mediated networked publics.

NETWORKING THE SELF

Identity[3] can be broadly defined as the positioning of self and other (Bucholtz & Hall, 2005, p. 586). To put it differently, identity refers to the ways in which individuals and collectivities are distinguished from other individuals and collectivities in their social relations (Jenkins, 1996, p. 4). It follows from this that identity bears two basic meanings: the one has to do with absolute sameness, while the other encompasses a notion of distinctiveness which, as Triandafyllidou and Wodak (2003) acknowledge, "presumes consistency and continuity over time" (p. 210). In addition, identity is neither natural nor static but multi-faceted (Lemke, 2007). It is socially constructed and hence should be viewed as "a condition of being or becoming that is constantly renewed, confirmed or transformed, at the individual or collective level" (Triandafyllidou & Wodak, 2003, p. 210).

In the same line of reasoning, people's identity is a fusion of two analytically distinct aspects: social identity and personality (or personal/individual identity) (Donath, 2006; Fairclough, 2003). Following Archer (2000), Fairclough (2003, pp. 160-161, 223) explicates that social identity is a matter of the social circumstances into which one is born and initially has no choice about (peasantry or gentry, working-class or middle-class, male or female, position within society's distribution of resources). On the contrary, personal identity is acquired later in life, when one is able to formulate one's main and ultimate goals as well as to balance and prioritize one's socialization in proportion to these. The textual dialectic between social and personal identity will be of particular interest here.

Nevertheless, identity cannot be exclusively condensed into a way of being; it also presupposes the inbuilt need to represent ourselves, to record our lives (Boardman, 2005, p. 3). We have "interests, passions, hobbies, idols, fetishes, problems, addictions, and aspirations" that we wish to "communicate, share, argue about, and bond over" (Thorne, 2008, p. 309). The Internet offers unprecedented opportunities in all the aforesaid. SNSs, in particular, should not be seen as a bare technological artefact but as a cultural arena which gives rise to the processes of self-presentation, impression management and friendship performance (boyd & Ellison, 2007, p. 219). SNSs profiles then function as "digital bodies" which identify a person plus constitute the end product of self-reflexive identity production, as boyd (2008b) forcefully enunciates. In her view, profiles uniquely locate and combine self-descriptions in the context of social connections.

Taking into consideration what has been discussed so far, this paper seeks to:

- Explore the linguistic strategies that Greek users utilize with a view to articulating and positioning themselves in *Pathfinder*, a Greek SNS service, acknowledging that the bulk of scholarship revolves around major SNSs such as *MySpace* and *Facebook*

overlooking culture- and language-specific environments.
- Examine the ways in which users help define each other's identity.
- Discuss the role of other visual channels (photos, graphics etc.) in presenting one's self since "communication is not only a linguistic process but also a multimodal exchange of meaningful information" (boyd & Heer, 2006).

METHODOLOGICAL ISSUES

For the purposes of this paper, which is part of a wider ongoing research on the discursive enactment of Greeks' identity in the Web 2.0 era, I embarked on a four-month discourse-centered online ethnography. Agreeing with Androutsopoulos (2008), I see online ethnography as having two dimensions: a screen-based and a participant-based one. The former centers on systematic and painstaking observation of online activities while the latter draws upon direct (face-to-face or mediated) engagement with online actors. Discourse-centered online ethnography, especially, coal esces both these dimensions and is complementary to the linguistic analysis of log data (ibid.). Having chosen *Pathfinder* portal as the field or "culture" (boyd, 2008a) of my research, I logged in every day for 3 hours at least to discern and understand its extension, boundaries, internal distinction and relations among its components as well as to develop a feel for its discourse practices and language styles documenting any observations and conclusions. Hence, instead of being detached and invisible, I customized my own profile in *Pathfinder* so as to be openly communicated to the users (Georgakopoulou, 1997; Hine, 2000; Larsen, 2007). Leaning on the principle of triangulation, which endorses different, interdisciplinary, methodological and source-specific approaches on the basis of various information (Wodak, 2001b), I gathered both subjective and objective data.

To commence with, I interviewed Zaharenia Atzitzikaki, who works as a web developer at Phaistos Networks, the company that owns *Pathfinder*. The benefit of discussing with her had been twofold. On the one hand, she provided me the wider socio-cultural context in which the discursive practices under investigation were embedded. On the other hand, she offered insights into the designer's instrumental role in the formation and actualization of online identity.

Moreover, a pilot questionnaire was distributed by means of email to 24 *Pathfinder* users (through snowball sampling) so as to pursue direct contact with the participants and obtain an initial idea on how they experience SNSs mechanics. Interestingly, some of them visited my profile either to become "friends" or to leave comments asking about the course of my research. Others emailed me to give supplementary feedback and express their enthusiasm about *Pathfinder* services.

Then, I had to choose a specific profile—from the thousands existing in *Pathfinder*—for fine-grained linguistic analysis. Having as a point of departure that *Pathfinder* blogs is the most popular service of the portal (see what Atzitzikaki says in the next section) and that a prerequisite for setting up a blog is to maintain a personal profile page in *Pathfinder*, my sampling technique was purposive (Herring, 2004b). In other words, I relied upon participant demographics after having consulted *Pathfinder's* list of the top 100 Hot Blogs[4] (January 2009). Abiding by my research questions and wishing to confine the available sample, I developed a set of criteria according to which the user whose profile would be analyzed should:

- Be 18-30 years old given that young adults are deemed the heaviest SNSs users (Hargittai, 2007).
- Have integrated multimedia applications into his/her profile showing literacy in HTML and CSS coding.
- Monitor his/her profile for at least one year, have at least two friends and a minimum of 100 comments on display.

Pathfinder top 5 blogs includes the same users for a very long period of time, in different ranking though, so these were excluded from the whole process as their identities could be easily traced. After daily and methodical observation, I came up with Sophia's profile created in 2003. At that time (January 2009), it had been viewed almost 15,000 times and included 290 comments and a list of 100 friends. Additionally, her blog in *Pathfinder* had been ranked several times among the 50 most avid blogs[5] on account of its emotional and intellectual leverage. I took field notes from direct observation of her profile together with dozens of screen dumps to capture her preferences and other users' comments about her.

All field notes, interview transcripts and Internet data were coded in terms of inductive semantic macro-area analysis which allowed me to detect patterns and begin making generalizations. As it was laid out in the introduction, the discourse analytical approach adopted for this study was that of CDA. Seeing discourses as both socially constitutive and socially shaped (Fairclough & Wodak, 1997), CDA's tenet is to unveil the "hidden" agenda of discourse; its ideological dimension (Wodak, 2001a). Rhetorical and linguistic techniques vital in cementing identities have been reported by Reisigl and Wodak (2001) and Fairclough (2003), thus for my analysis I drew a lot from their terminology and categories placing weight upon the use of tropes, pronouns and modality. Owing to the multimodal architecture of *Pathfinder*—and any SNS—there was an urgent need to move beyond text-based phenomena (Garcia et al., 2009; Hull & Nelson, 2005; Naper, 2001) and ponder over the "language of new media design" (Martinec & van Leeuwen, 2009). It has been argued that visual imagery is never innocent; it is always constructed within the empire of ideology (Kress and van Leeuwen, 2006; Rose, 2001). On such grounds, profile images, photos, typeface and color were also counted in for the manipulation of meanings and the implication of any ideological opinions (van Dijk, 1998) in SNSs.

Last but not least, I would like to comment on the ethical ramifications imposed on my project. Embracing Ortega and Zyzik's (2008) reconceptualization of research deontology in computer-mediated communication (CMC), I first emailed Atzitzikaki seeking consent on whether I could be allowed to use *Pathfinder* as a virtual space for investigation. Aside from the questionnaire, I sent to *Pathfinder* networkers a message to assure them that no clues of their personal information would be given away. During profile assessment, I was constantly aware of the fact that SNSs profiles, as any text-based computer-mediated communication environment, leave a persistent record that may easily be searched (Herring, 2004a). Consequently, I preserved pseudonymity throughout my data. Sophia is a fictive name; her exact age and contact details are concealed whereas the comments about her are displayed within the immediate language co-text protecting other users' identities as well. Had she been informed about my research, she might have responded with dismay or—even worse—advanced through the minefield of the observer's paradox by deliberately altering elements in her profile. In such case studies though, taking into account participants' awareness and interpretation of their own practices (Androutsopoulos, 2008) can be proved invaluable in arriving at more general and integrated conclusions. At any rate, my top priority was not only to allow naturally occurring behavior but also to prevent the published material from causing any harm to the subjects involved (AoIR, 2002).

THE COMMUNICATIVE SETTING OF PATHFINDER

The Designer's Perspective

ADSL broadband connection was commercially launched in Greece in 2003. It is estimated that the current Internet penetration, both ADSL and

PSTN, of the general population reaches a bit more than 30%. The typical Greek Internet user is portrayed as male, approximately 30-35 years old, highly educated, well-off and urban (Observatory for the Greek IS, 2007).

Pathfinder portal (www.pathfinder.gr) released its beta in 1997 and since then it has been established as one of the most integrated Greek gateways to entertainment, information and communication. According to AGB Nielsen ratings, over 1,177,632 unique users visit *Pathfinder* every month. Its popularity is attributable to a wealth of services which meet Greek users' manifold needs and interests by combining social networking with further social functionality: instant messenger, email, blogs, profiles, forum, chat, fan clubs, personals, experts, shopping, news and sports, to name but a few. It comes as no surprise then that in 2007 *Pathfinder* won the Tech Excellence Award[6] as one of the best Internet services in Greece.

Demographically, for the most part, *Pathfinder* users are between 18-44 years old; 57% of them come from Athens, 10% from Thessaloniki and the remainder is portioned all over the rest of Greece and Cyprus. Atzitzikaki pinpoints that they are chiefly attracted by those services facilitating interaction and self-expression, that is to say *Pathfinder* blogs and *Pathfinder* clubs.

In asking her about the modern fuss of crafting profiles, she answered:

Human beings are conceited creatures who always hunt for approval and recognition; therefore it stands to reason that they strive for self-promotion via a global medium such as the Internet. Profiles enable them to find people with similar interests, make new friends or even meet a new partner. The success of profile-based services lies in that they are manageable, fruitful and, of course, are offered for free.

Concerning the topic at hand, *Pathfinder* profiles, Atzitzikaki says:

The service was launched in 2000, long before the volteface of Internet towards the user and social networking, as it is the case nowadays. The initial idea was to create a "face" for the thousands of Pathfinder users; a place which would capture their interests, their presence in various services along with friends' comments.

At the time of preparing this interview (December 2008), *Pathfinder* counted 93,377 profiles out of which 70,000 were extrapolated as active. My query was whether *Pathfinder* web developers browse through users' profiles in conjunction with what monopolizes their discussions. Atzitzikaki elucidates:

We always cast a glance at users' profiles not only to detect problems but also to discover the patterns on the basis of which our users utilize the service. We get very impressed when users deal meticulously with the finest details of the profiles service while we feel disappointed since there is often prejudice against technological advancements and new additions—users do not view them as something positive.

It goes without saying that the way users construe their identities in SNSs is encouraged by the software (Marwick, 2005). *Pathfinder* developers are well aware of the fact that they do not simply construct a virtual world; they are responsible for crafting the selves that will inhabit it (McDonough, 1999, p. 868):

The most difficult part in our job is to distance ourselves from the developers' idiosyncrasy and dive into users' psychology; to work out which applications will be meaningful to them. Everything is constantly being checked so as to be accessible to users with little Internet experience. This is the biggest challenge for us, I think.

As a final—albeit crucial—point, Atzitzikaki spotlighted the ubiquitous feeling of dutifulness:

Figure 1. The continuum of implicit and explicit identity claims on SNSs. (Adapted from Zhao et. al, 2008, p. 1824)

Implicit	⟷	**Explicit**
Visual Self as Social Actor	**Enumerative** Cultural Self	**Narrative** First-Person Self
Pictures/Friends' comments	Interests/Hobbies/Films/ Music etc.	"About Me…"

We are absolutely conscious of the responsibility we carry as a company towards our users. Nothing is changed with a light heart.

This is exactly the reason why *Pathfinder* developers, via their official blog and *Pathfinder* Support service, have opened a channel of communication with their users exchanging comments, suggestions and reports for problems for the sake of the highest possible efficiency in the social networking microcosm.

The Users' Perspective

To get an impression of how *Pathfinder* users themselves conceptualize their social networking activities, an explorative questionnaire survey was conducted involving 13 male and 11 female informants. Their age ranged from 13 to 47 years old (mean=34.5) whilst they came from different regions of Greece and Cyprus.

The mean time of maintaining a profile in *Pathfinder* was found to be 3.1 years. Excepting two users, all the others had at least one extra SNSs profile, with Facebook being the most popular service. The main reason for creating a *Pathfinder* profile was to express and share interests, views and ideas (69.2%). Other reasons included experimenting with web design and multimedia applications (23%), getting in touch with new people (16%) and being urged by a friend who already owned a *Pathfinder* profile (15.3%). Nobody mentioned that they chose *Pathfinder* because communication is accomplished exclusively in Greek and only with Greeks and Cypriots. Vis-à-vis this matter, Atzitzikaki argued that although *Pathfinder*'s language specificity addresses a limited audience, it is definitely advantageous with reference to content specialization and efficiency.

Regarding the frequency of visiting their profile, most respondents answered that they log in every day, with 2-6 times a week as a second option. Profile customization tends to occur once a month. Remarkably, two male users admitted that they have never altered their profiles.

At this point, it would be wise to take a look at *Pathfinder* profile elements. Figure 1 presents a *Pathfinder* profile in its simplest form annotated with translations of the respective fields. Users are required to provide demographic information; interest and self-description prose; photograph and avatar (only the avatar appears while interacting); friends listing; comments. All sections are open-ended; the only close-ended questions with preset category-based answers pertain to interests, age, marital status and sex. In my survey, the informants

Table 1. Reasons for sending comments to a friend's profile

Communication orientation	Frequency (%)
Say "hello", "good morning"	57.1
Wish (on name day, birthday, Christmas, Easter, wedding or other felicitous occasion)	64.2
Give information	64.2
Give advice	35.7
Ask advice	28.5
Exchange news	50
Gossip	14.2
Forward a poem or a joke	28.5
Send an interesting URL	42.8
Announce your achievements	14.2
Invite your friends to a fan club, blog, website you have created	42.8
Arrange a meeting	28.5
Thank or congratulate	7.1

reported that they most often customize "recent news" and "favorite quote" sections.

Multimedia affordances have split users into two groups: those who applaud them and those who are somewhat unenthusiastic. The former see it as a chance for further self-expression showing special preference to wallpapers and music. Consider what two of the informants replied when asked why they incorporated multimedia applications in their profiles.

- To express personal views and my mood in a different way!! (male, 40)
- For aesthetic reasons as well as to present a more complete picture of myself to others. (female, 43)

In contrast, unenthusiastic users either think there is no point in enhancing their profiles or lack the technical knowledge to do so. In any case, all of them have uploaded an avatar to their liking which, as they maintain, constitutes the most identifiable trait of their online performance.

Co-construction and meaning-making in SNSs occurs when users exchange linguistic products. Table 1 displays the ways by means of which *Pathfinder* networkers pursue sociability and instrumentality. Priority is given to wishes and informational-practical issues followed by phatic communion comments.

The informants' very last task was to assess their networking behavior (see Table 2). With regard to the process of impression management, it is striking that all of them denied buttressing a pretentious persona. That the majority recognizes profiles as surrogates of self-persistence, even when logged out, is indicative of SNSs' promise of "digital immortality" (Raptis, 2009).

First-Person Self

Let us now turn to our case in point, Sophia's profile (see Figure 1; for English translation consult the Appendix) and commence with the most explicit verbal descriptions of self as provided at the "Personal Information" section. It is noteworthy that Sophia constructed her profile deploying the rhetorical figure of irony as an intensification strategy (Reisigl & Wodak, 2001). By stating that she comes from *Ταρζανία – Tarzania* (and not Tanzania), she humorously creates a fictive place which alludes to qualities germane

Table 2. Users' assessment of their networking behavior

	YES (Frequency %)	NO (Frequency %)	SOMETIMES (Frequency %)
Do you announce in your profile any changes in your life (personal, professional etc.)?	50	28.6	21.4
Have you included in your profile any information solely to be likeable to others?	0	100	N/A*
Have you concealed from your profile any information for fear of giving the wrong impression to others?	35.2	64.8	N/A
Do you think that maintaining a profile in Pathfinder or other social network site is a time-consuming process?	28.4	71.6	N/A
Do you think that it isolates you from your offline life?	21.5	64.3	14.2
After logging out of Pathfinder and switching your computer off, do you think that parts of yourself continue existing in the profile you have made?	64.3	35.7	N/A *Not applicable.

to Tarzan and perhaps her: strength, speed, flexibility and promptitude. However, Tarzan could be seen as a pars pro toto (a part standing for the whole) synecdoche for the jungle: “an unfriendly or dangerous place or situation, especially one that is very difficult to be successful or to trust anyone” (Oxford Advanced Learner's Dictionary, 2005). In this rationale, Tarzania mockingly puns on the Greek slang word *ταρζανιά* (tarzaniá) used to denote unsuccessful risky behavior as a result of trying to imitate Tarzan.

The sarcastic tone is further fortified at her “marital status”[7] entry where she describes herself as *χήρα* (widow). Anchored to my field notes, Sophia is a young woman, at her late twenties, willing to flirt and meet new people, therefore such a statement should not be taken at face value. As regards her occupation, *Κολλάω μπρίκια και χρεώνω πολλά* (I weld coffee pots and charge dearly), she wittingly alludes to the colloquial Greek rhetorical question *Μπρίκια κολλάμε*; (Do we weld coffee pots?) said when the quality of one's work is disdained.

As it follows from the above, this is what Marwick (2005) calls an “authentic ironic profile” suggestive of the user's attempt to compensate for the strict structure of the profile format and engage in identity play and experimentation. Sophia here blends authentic with ironic information to amuse her friends, to act cool or camouflage personal details from people she does not wish to view them.

Cultural Self

In this highly elaborated category, it is as if Sophia says “See what I like/do/create/read/listen to” (Zhao et al., 2008, pp. 1825-1826) allowing other networkers to elicit themselves her individual or character traits. The enumerative cultural self-description in *Pathfinder* includes the following sections: favorite activities, favorite books, favorite albums, favorite films, recent news, favorite quotes, interests, my blogs, my wishlist, my clubs, my favorite websites, and my zodiac sign.

As it is shown, in lieu of listing hobbies and habits, Sophia's favorite activities are encapsulated in one and only word: *Εσύ* (You). The reference of the second-person singular pronoun here is dubious. Possible meanings are illustrated in the referential matrix below:

(a) You = my lover (addressee-exclusive)
(b) You = the potential lover; man in general (partially addressee-inclusive)

(c) You = every reader of my profile, blogs, posts (generic *you*; totally addressee-inclusive)

Note that the cardinal importance of this *you* as an activity is graphologically amplified by emboldening and larger typeface.

The field of "favorite albums" is an instance of transgressing the structural boundaries of the profile. Sophia prefers the broader "favorite discographies" employing epistemic hypothetical modality (*θα τις έλεγα – I would call them*) followed by ellipsis (…). In this tentative manner, she commits herself to what is most proper for the texturing of her cultural identity (Fairclough, 2003). At the end of the list, she trails off "to be continued…" conveying the idea that identity is fluid and must be established and constructed at all times (Triandafyllidou & Wodak, 2003, p. 206).

"Recent news" and "favorite quote" highlight certain intertextual connections with the Greek folk, literary and music tradition via which Sophia's thoughtfulness and romanticism are projected. *Τα λίγα λόγια ζάχαρη και τα καθόλου μέλι* (Few words are sugar, no words at all are honey) is a proverb equivalent to "silence is golden" picked here as a guideline for life and brought to the foreground by the use of the exclamation mark. She also provides a stanza of *Πολικός* (Polar), a rare poem written by Dimitris Liantinis, a distinguished professor of Philosophy in Greece, whose literary work dealt with the themes of love, death and loneliness. The latter are echoed in the two interstitial, complementary to each other, rhetorical questions conceived in all likelihood by Sophia herself (*Ποιος είπε ότι είμαι εδώ; – Who said that I'm here?* and *Όταν δεν θα 'μαι πια εδώ εσύ τι θα κάνεις; – When I won't be here anymore what are you going to do?*) whereby the pronouns *I* and *you* (my lover) are at emotional interplay. This sentimentality is strengthened by her favorite quotes: the refrains of two Greek songs: *Βαριά ποτά, βαριά τσιγάρα* (Heavy drinks, heavy cigarettes), written by Stergios Papastolou, and *Ο Παράξενος* (Strange), written by Manos Pyrovolakis.

While browsing *Pathfinder* profiles, I gleaned that most users completed the "recent news" entry with phrases such as: *New beginning, I'm… still alive, I'm hungry, Something's going on…, Our loving daughter is 1 year, 7 months & 6 days old*, that is issues that touch upon mundane matters. Contrarily, Sophia—once again—violates the norm by setting up dialogicity between different voices (Fairclough, 2003) which, harking back to Atzitzikaki, can be meaningful only to Greeks and that is exactly the benefit of participating in language- and culture-specific SNSs.

Sophia's rich "interests catalogue" constitutes a token of well-roundedness and sociability. Nevertheless, its validity is challenged by one of her friends: *"You have so many interests… do you have time for all these or do you write them just for the sake of it?"* Regarding this issue and its implications for researchers, Hine (2000, p. 118) remarks that instead of questioning whether people on Internet are actually who they say they are, the empirical focus should shift on how, where and when identities become available on the Internet. In the main, Sophia's cultural self is not defined by what the mainstream market offers. Her preferences both in Greek and foreign cultural products reveal a fine, unsophisticated and coherent taste.

Self as Social Actor

The conversational properties and cultural resonances attached to visuals in SNSs are part and parcel of how users perceive themselves as well as their audience (boyd & Heer, 2006; Kress & van Leeuwen, 2002). Starting with the wallpaper, Sophia has chosen a grey one embroidered with flowers on the right side as a minimalistic, perfectly neutral canvas upon which parts of her identity are unfolded. Looking at the default photograph, we are dealing with a symbolic attributive process (Kress & van Leeuwen, 2006, p. 105) whereby the dandelion clock evokes a domain that contains connotations such as freedom, childhood, innocence and daydreaming. The same flower appears in the avatar too, which accompanies Sophia's posts forming a kind of trademark. It is a case of narrative representation (ibid., p. 56) with the actor blowing upon the seeds of the dandelion clock while the sunset in both images instigates mellow feelings. Literally speaking, the green eye placed below Sophia's zodiac sign could synecdochically depict her eyes (if we knew she is green-eyed). Metaphorically, it may suggest omnipresence—likened to that of God or even Orwell's *Big Brother*, for example—or could also stand for a mirror of truth or a "gate" to someone's soul.

Color plays an essential role in the study of the ideological function of signs in social formations and thus the rendering of identities (Koller, 2008). SNSs offer users the unique opportunity to experiment with colors, shades, brightness and saturation according to their mood or aesthetic appreciation. In Sophia's page, the entry titles, *you* on her favorite activities and her questions in "recent news" are in magenta, a dark, saturated, non-textured pink which is associated with an "exaggerated image of feminine sexuality" (Sparke, 1995, p. 198 in Koller, 2008, p. 413). The content (favorite books, albums, films, song lyrics) is written in purple which conveys a sense of spirituality and creativity.[8] The well-balanced combination of pink with a darker shade of purple in *Είμαι παράξενη γιατί αγαπώ...* (I'm strange because I love...) emits calmness and sensitivity and is verbally enforced by the word *αγαπώ* (love). The proverb is the only string in white, a synonym to the purification of thoughts which functions as a powerful ally to the wisdom crystallized in the saying. Dark blue is chosen for hyperlinks invoking rest for the eye as well as for the poem *Polar* augmenting its inwardness and serious tone. On top of that, the poem and the preceding "recent news" are italicized[9] for emphasis. Sticking to typeface, although a sans serif font[10] is applied everywhere giving simultaneously a contemporary touch to the text (Boardman, 2005), the song lyrics are relatively larger and in a serif font representative of formality.

Apart from the blending of voices discussed earlier, Sophia also creates an interdiscursive product, a mixture of different genres, which is visually instantiated. The phrases *Ποιος είπε ότι είμαι εδώ;* (Who said that I'm here?) and *Είμαι παράξενη γιατί αγαπώ...* (I'm strange because I love...) are presented in the form of a crawl (unfortunately, the animated effected cannot be reproduced in print), typical of most TV news stations. In this fashion, with the constant move across the screen, it is as if Sophia shouts "HEY! Pay attention! Something's going on!" (Wright, 2008).

Her visual self is consummated with the entry "my briefcase" where the hyperlink conduces to a collection of backgrounds, wallpapers, graphics, personal photos and HTML codes that Sophia stores for future embellishment of her profile.

CO-CONSTRUCTION OF SELF

SNSs have stretched the traditional meaning of "friends" to include anyone with whom a user has an online connection (Ofcom, 2008). All registered users in *Pathfinder* can send comments to one another without necessarily being added to their friends' list. Table 1, previously, exhibited the main reasons for commenting on a friend's profile. Based on that and going systematically through all the comments[11] in Sophia's profile (290 in total until January 2009), I distinguished six major other-presentation thematic areas:

(1) Sophia as a child
(2) Sophia as a sexy woman
(3) Sophia as a good friend
(4) Sophia as an active networker
(5) Sophia as an artist
(6) Sophia as a compatriot

Let me now proceed to each one in turn.

Child

An interesting characteristic of the following extracts is the abundance of diminutives also termed “caressives” in Greek. *-άκι, -ίτσα* and *-ούλα* here are derivational suffixes for indexing the diminutive and their use indicates affection, endearment and solidarity serving thus as markers of informal positive politeness (Makri-Tsilipakou, 2003; Sifianou, 2001). All four comments are written by female networkers around their 40s, an age associated with child-raising, food-preparing and care-giving situations. Hence, addressing Sophia via such positive diminutives is seen as highly appropriate (Makri-Tsilipakou, 2003, p. 718). The words *παιδί* (child) and *μωράκι* (baby+DIM) reinforce the endearing connotations. At this point, it is worth mentioning that, by and large, Greeks overuse diminutives in their social interactions. The fact that this linguistic behavior tends to become the norm in virtual environments, especially with people that have never actually met one another, calls for further sociolinguistic investigation.

(1) ..μικρακι μου γιορταζεις;;;πολυχρονη και καθε ευτυχια..ολη μα ολη την αγαπη μου.. φιλακια με χιλιες ευχες...

..my tiny+DIMINUTIVE (DIM) do you have your name day???many years [to live] and every happiness..with all indeed all my love.. kisses+DIM with thousand wishes…

(2) Καλημέρα ζουζουνίτσααααααααααααααααα ααααααααααααα

Σματςςςςςςςςςςςςςςςςςςςςςςςςςςς
Good morning niggeeeeeeeeeeeeeeeeeeeeeee eeeeeeeeeeeeeet+DIM
smooooooooooooooooooooooch

(3) αχ Σοφακι μου καλο μου παιδι..αυτο εννοω και μολις καταλαβα που σ εβαλα σε κοπο.. μη μου κακιωσεις ναι;;;σ ευχαριστω πολυ μωρακι μου..

ah Sophia+DIM my good child..that’s what I mean and I’ve just realized that I was trouble to you..don’t be mad at me ok???thank you very much my baby+DIM..

(4) Μια καλημέρα στην Ηλιακτιδούλα μου.

Good morning to my Sunbeam+DIM.

Sexy Woman

As opposed to the preceding comments, Sophia’s male friends are more effusive. The augmentatives in (5) and (7) are not used pejoratively nor to indicate large size but rather to connote “hotness”. *Gamato* in (6) is a Greek slang adjective meaning *perfect*, usually said to express admiration and enthusiasm. The multiple exclamation marks underpin the general fervor in (5) and (6), whereas *Φιλιά παντού* (Kisses everywhere) in (7) could be perceived as sexual innuendo.

(5) k esy moy eleipses kopelara moy!![12]

i missed you too my girl+AUGMENTATIVE (AUG)!!

(6) Xarika polu gia ti gnorimia........ Ise gamato koritsi!!! filia!!!

I’m very pleased to contact you........ You’re a wicked girl!!! kisses!!!

(7) Είσαι κουκλάρα. Φιλιά παντού.

You’re a doll+AUG. Kisses everywhere.

Good Friend

Friendship is expressed through intensification strategies and, in precise, evaluative statements that encode users' emotions, moods and general dispositions (Fairclough, 2003, p. 172; Reisigl & Wodak, 2001, pp. 82-83). In (8), the evaluative element is the verb phrase *poso xairomai* (I'm so glad), accentuated by the particle *poso* (so), while in (9), the adverb *υπέροχα* (wonderfully). The exclamation marks in both instances function in the same expressive manner.

(8) pw pw poso xairomai poy meta apo tosa xronia kratame akoma epafh!!

oh I'm so glad that after so many years we still keep in touch!!

(9) Καλή μέρα αγαπητή μου φίλη ! Σε ευχαριστώ πολύ για τις θερμές σου ευχές ! Μέ κάνεις να αισθάνομαι υπέροχα, με το να μου δείχνεις την φιλία σου ! Φιλάκι πολλά

Good morning my dear friend ! Thanks a lot for your hearty wishes ! You make me feel wonderfully by showing me your friendship! Many kiss

Active Networker

It can be deduced from the examples below that users compensate for Sophia's networking participation and encouragement by performing the speech act of thanking. In (10), the triple repetition of thanking (*σ ευχαριστω, σ ευχαριστω πολυ, πολλα ευχαριστω – thank you, thank you very much, many thanks*) is amplified by the particle *πολύ* (very), apparent also in (11), as well as the adjective *πολλά* (many). The wish *να είσαι καλά* (be well) in (10) and (12) strengthens their gratitude and puts Sophia on a pedestal.

(10) σ ευχαριστω για το υπεροχο ποιημα που μου αφιερωσες...δεν ξερω τι ναπω ειλικρινα με συγκλονησες...σ ευχαριστω πολυ κοριτσακι μου νασαι παντα καλα..φιλακια πολλα ευχαριστω

thank you for the wonderful poem you dedicated to me...i don't know what tosay honestly you thrilled me...thank you very much my girl+DIM be always well.. kisses+DIM many thanks

(11) Σ' ευχαριστώ πάρα πολύ για τη στήριξη (στο φόρουμ)

Thank you very much for your support (in the forum)

(12) σ ευχαριστώ για τα καλά σου λόγια. Χαίρομαι που υπάρχεις εσύ και τα άλλα παιδιά να μοιραζομαι τις σκεψεις τις ανησυχίες και τους καθημερινούς προβληματισμούς μου. Να είσαι καλά Φιλια

thank you for your good words. I'm glad that you and the other guys exist so that I can share my thoughts my worries and my everyday problems. Be well Kisses

Within this framework, Sophia is also recognized as an expert networker. The user in (13) pays her a compliment (*Μου αρέσει πολύ … το προφίλ σου – I like so much … your profile*) which serves as a request for the object complimented, namely the profile. The question is worded in low modality (*Μήπως θα μπορούσες – Could you perhaps…*) crucial for showing politeness and respect.

(13) Γεια σου. Μου αρέσει πολύ ο τρόπος που έφτιαξες το προφίλ σου. Μήπως θα μπορούσες να αφήσεις μήνυμα στο προφίλ μου για να μου πεις πως μπορώ να εισάγω εικόνα και να βάλω μουσική;

Hello. I like so much the way you have created your profile. Could you perhaps leave a message to my profile and tell me how can I import an image and upload music?

Artist

As suggested in (14) and (15), Sophia's artistic temperament is articulated via complimentary and cordial lexis (*πραγματική ζωγραφιά – real painting, υπέροχες – great, όμορφα – nice, perfect – τέλεια*). In (15) specifically, the user verbalizes his flattery through a masterly parallelism of adjective + noun. Notably, both users point to how her creativity appeals to their senses (*ομορφιά – beauty*) and emotions (*διάθεση – mood*).

(14) Καλή μέρα Σοφία που έχεις κάνει το blog σου πραγματική ζωγραφιά. [...] Νάσαι πάντα καλά και να σκορπίζεις γύρω σου ομορφιά !!!

Good morning Sophia that you have made your blog a real painting. [...] Bealways well and strew beauty around you !!!

(15) Καλημερα Σοφια))) Υπεροχες οι φωτογραφιες... ομορφα κομματια... τελεια ανεκδοτα... μου αλλαξες την διαθεση!

Good morning Sophia))) Great photos...nice songs... perfect jokes...you changed my mood!

Compatriot

That Sophia comes from a Greek provincial town is a recurring theme in her comments wall that directly appeals to the activation of a collective identity. (16) and (17) demonstrate that despite SNSs' national and global reach, these virtual worlds are still regionally sensitive (Livingstone, 2008, p. 395; Rogerson, 2004). Through the endearing use of the word *patriot* (*γλυκό και μικρό πατριωτάκι – sweet and little patriot*+DIM) and her metonymical baptism as *patrida – homeland*, Sophia is invited to be identified with the region in question as well as to verify her SNS friendships because of this region.

(16) Σ΄ευχαριστώ για την τιμή της καταχώρισης σαν φίλος, Σοφάκι... Εύχομαι να μην σε απογοητεύσω ποτέ... Την αγάπη μου, γλυκό και μικρό πατριωτάκι:)) Φιλιάααααααααα

Thank you for the honor of adding me to your friends, Sophia+DIM...I wish I will never disappoint you...My love, sweet and little patriot+DIM:)) Kisses

(17) Hello patrida!

Hello homeland!

Metadiscourse Comments

Co-construction also involved reflexive comments on Sophia's profile content as the extracts below indicate.

(18) ¨Τα λίγα λόγια ζάχαρη & τα καθόλου μέλι¨............ ΑΨΟΓΟ!!!!!

¨Few words are sugar and no words at all are honey¨............ PERFECT!!!!!

(19) μου αρεσει που σου αρεσει ο ζερβουδακης

i like that you like zervoudakis

(20) σοφακι μου θελεις να γινω εγω η αγαπημενη σου ασχολια?με εκτιμηση και χωρις παρεξηγηση......

my sophia+DIM do you want me to become your favorite activity?with respect and no misunderstanding......

(18) and (19) are evaluative statements about desirability (Fairclough, 2003). The adjective *άψογο* (perfect) in (18), which is further enlivened by capitalization and multiple exclamation marks, is a token of high intensity evaluation. On

the other hand, (19) constitutes a case of affective evaluation (ibid.) realized by the affective mental process verb *αρέσει* (like). The rhetorical question *θελεις να γινω εγω η αγαπημενη σου ασχολια?* (do you want me to become your favorite activity?) in (20) is posed by a male networker who seizes on the ambivalent use of *you* in Sophia's activities to send out sexual nuances.

Even though the catalyst for metadiscourse comments was either appraisal or teasing, there was only one case in the corpus where self-referential language was deployed to accompany negative evaluations. Consider:

(21) i akatadexti eisai, i ypervolika apasxolimeni, i poly mikro gia paixnidia!!! opote afta pou grafeis sto profil sou einai......

you are either snooty or extremely busy or too young for games!!! so what you write in your profile is......

The offender in all probability left his comment incomplete for reasons of avoiding swearing. Whatever his incentive was, it is worthwhile that Sophia has not deleted his message welcoming the plural and impartial construction of her identity. Nevertheless, this does not hold for everyone as one of my informants in the survey said that *"It's been a long time since I have deleted all those messages I didn't like"*.

On the whole, identity co-construction amounts to an implicit identity claim ("Know me by my friends") which is by far more effective, spherical and spontaneous than mere self-orchestrated, stylized description.

CONCLUSION

Nowadays, producing and networking online content has become instrumental in handling one's identity, lifestyle and social relations attesting simultaneously one's personal importance (Glatzmeier & Steinhardt, 2005, p. 49; Livingstone, 2008, p. 394). Built upon the precepts of discourse-centered online ethnography, the current study sought to delineate how SNSs can provide a novel forum for generating, reinforcing and disseminating aspects of both social and personal identity. *Pathfinder's* popularity and diverse usage make it an ideal candidate for investigating the value and implications of the phenomenon from a Greek point of view. More precisely, the emphasis was placed upon the armory of discursive—including linguistic and multimodal—strategies that networkers operationalize for reasons of self-presentation in conjunction with the rhetoric of positive-other presentation as implemented by their SNSs friends. With the objective to approach the issue more holistically, my linguistic interpretation was triangulated by interviewing an expert in the SNSs field, Zaharenia Atzitzikaki, as well as conducting a quantitative pilot survey.

Given that one's online identity is inscribed within the software instead of being inherently tied to one's "body" (Marwick, 2005), Atzitzikaki's view on the subtleties that web developers take into account when producing such software was more than enlightening. *Pathfinder* web developers strive for creating tools according to users' diverse and multifarious needs irrespective of the difficulties this task entails. What is more, they are in constant negotiation and interaction with *Pathfinder* members to detect any problems and provide fruitful solutions. At the end of our discussion, Atzitzikaki disclosed that a brand new and more technologically advanced version of *Pathfinder Profiles* service is going to be launched within 2010 aiming at multiplying the means of self-expression—a great potential for future in-depth research.

The questionnaires, on the other hand, analyzed by descriptive statistics, provided corroborative data which unraveled key trends about *Pathfinder*'s networked topology. Being exposed to a series of multiple, dichotomous and open-ended questions, the respondents gave vital clues regarding the reasons for crafting profiles, profile customization, sending comments and self-impression management. Markedly, most of them saw profile maintenance as part of their everyday lives; as a parallel universe where their selves are incessantly in orbit. These findings do not assert to be statistically representative, yet they are diverse in that they included networkers from different regions of both Greece and Cyprus and with different socio-economic backgrounds.

The online textual dialectic between personal and social identity (with particular reference to gender and sexual identity) in *Pathfinder* was examined through the spectrum of an alpha socializer networker's profile. Adhering to Zhao et al.'s (2008) sociological model of implicit and explicit identity claims on SNSs, it was shown that the self can be built in narrative, enumerative and pictorial terms. The application of critical discourse analytical tools demonstrated that via allusions, irony, modality, pronouns, intertexuality and interdiscursivity along with a visual panoply of symbolic images and meticulous layout choices in color and typeface, the networker under investigation promotes a well-polished self-image; she appears sensitive, romantic, spiritual, thoughtful, humorous, mysterious, with fine taste and aesthetics, playful in manipulating colloquialisms and discourses, and inventive as regards the strict format of the profile.

Notwithstanding, identities are not solely self-actualized but constituted through interaction with others (Larsen, 2005; Livingstone, 2008). Drawing on predication and intensification strategies, mobilized by endearing connotations, value-laden adjectives and nouns, presuppositions and insinuations, and rich punctuation, friends in *Pathfinder* foregrounded a commendable image of the networker under investigation which was much more authentic and forceful than what she did assert for herself. So, in the world of networked publics, we are not only what we post (Schau & Gilly, 2003) but also what others post about us. I must highlight here that this is only a case study and therefore in no way do its results claim to be typical of a wider, undifferentiated population. As such, it just attempts to feel the pulse of Web 2.0 trends aspiring to constitute a stepping-stone to future large-scale research.

Let me now turn to a number of caveats that should be allowed for when discourse analysts study social networking environments. Although SNSs evangelize the rise of user-generated content, they are surrounded by controversies as regards their fixed and ex parte structure facing users as mere consumers of entertainment products (Marwick, 2005). What needs to be explored therefore is the modes in which users manipulate this content with a view to transgressing the rigidness of the service and gaining popularity. Suffice to think that in the near future successful SNSs profiles, with heavy web traffic, are estimated to be resold at extravagant prices as it already occurs in Second Life and other virtual worlds (Zikos, 2007). In addition, profiles should not be deemed as a kind of objective reality frozen by the computer since the actual social reality attached to identity is more complicated (Paccagnella, 1997). We should bear in mind that identities are in constant flux; identity on screen especially cannot be identical with identity-across-events or with identity-across-the lifespan (Lemke, 2007; McBride and Wildner-Bassett, 2008). In language-specific SNSs, like *Pathfinder*, decodings and interpretations of the produced meanings are bound to vary among addresses with different socio-cultural, historical and geographical specificities. In view of that, studies should indispensably be elucidated by longitudinal ethnographical investigation involving direct contact with SNSs actors. It would be interesting to conduct cross-cultural/linguistic studies on profiles to detect similar or different patterns in identity texturing. It could also be possible to work with non-randomly selected networkers who have profiles in more than one SNS and focus on how discourses about identity are recontextualized.

To conclude, in juxtaposition to those who consider SNSs a flash in the pan, Atzitzikaki sounds fairly optimistic:

Social networking is not something transient in the web nor is it going to die out soon; it is just the evolution of a global phenomenon.

On such grounds, SNSs should be approached as a "space for growth" (Turkle, 1997, p. 263) that encourages users to have agency, with the skill of coordinating their behaviors and the responsibility for shaping their own development—be it linguistic, social, psychological—in both online and offline realms (Clarke, 2009; Zhao et al., 2008, p. 1831).[13]

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KEY TERMS AND DEFINITIONS

Computer-Mediated Communication: Computer-mediated communication (CMC) is that kind of communication which occurs via the instrumentality of computers. It can either be synchronous (when the message is read immediately) or asynchronous (when the message is read at a later point). The language of CMC constitutes a fusion of writing with spoken conversation. However, it exhibits unique features of its own such as smileys, acronyms, abbreviations and special lexis varying according to the available technologies.

Critical Discourse Analysis: Critical discourse analysis (CDA) is a critical, interdisciplinary approach to discourse according to which language is a form of social practice. It essentially deals with analyzing opaque as well as transparent structural relationships as manifested in language. The three cornerstones of CDA are: the concept of power, the concept of history, and the concept of ideology. Its origin resides in classical rhetoric, text linguistics, sociolinguistics, applied linguistics and pragmatics.

Discourse: Discourse refers to language use in speech and writing. Critical Discourse Analysis considers that there is a dialectical relationship between a particular discursive event and the situation which frames it: the discursive event is not only shaped by the situation, but it also shapes the situation.

Discourse-Centered Online Ethnography: The term discourse-centered online ethnography refers to the use of ethnographic insights as a backdrop to the choice and interpretation of log data, with a view to illuminating relations between digital texts and their production and reception practices.

Identity: Identity is defined as a process, as a condition of being or becoming, that is constantly renewed, confirmed or transformed at the individual as well as at the collective level. There are two distinct aspects of one's identity, namely social identity and personality (or personal identity). Social identity refers to the social circumstances into which one is born while personal identity is acquired later in life. The relationship between individual and collective identity is mutual. Individual identity is socially constructed through social interaction. Simultaneously, collective identities are negotiated through the individuals who identify with a particular group.

Modality: Modality refers to those features in a text that express the speaker's and writer's attitudes towards themselves, their interlocutors and the topic at hand, that is to say what they commit themselves to in terms of truth or necessity. Modality is distinguished into epistemic modality (modality of probabilities) and deontic modality (modality of necessity and obligation). Both modalities can have high, median or low levels of commitment.

Multimodality: Having social semiotic theory as a point of departure, multimodality considers that—like speech and writing—all modes (i.e.

images, gestures, 3-dimensional forms, animation) consist of semiotic resources upon which people draw for the meaningful representation of events and relations. Adopting a multimodal approach at linguistic analysis entails looking at how language is embedded within a broader social semiotic rather than a decision to "side-line" language (Jewitt, 2008).

New Media: New media refers to any interactive digital media production which is distributed via the Internet or the World Wide Web. Examples include portals, news sites, newsgroups, weblogs, wikis, email, threaded discussion forums, bulletin boards, chat rooms, instant messaging, MUDs (Multi-User Dimensions / Domains / Dungeons), MOOs (MUD Object Oriented or Multi-User Object Oriented), chatbots, text messaging via mobile phones, social network sites, audioboards, and desktop videoconferencing.

Social Network Sites: Social network sites are mediated public topologies which allow users to create online profiles and develop online communities with common interests and activities.

Strategy: Strategy is referred to a more or less accurate and more or less intentional plan of practices (including discursive ones) adopted to attain a specific social, political, psychological or linguistic aim. Discursive strategies are systematic ways of using language.

ENDNOTES

1 For a debate on whether the term *social network sites* is preferred to *social networking sites*, see boyd and Ellison (2007) and Beer (2008). Here, I deploy the term *social network sites* seeing social networking as the activity of participating in such sites.

2 Web 2.0 has been defined as a combination of economic, social and technological trends that lay the foundation for the next generation of the Internet—a more mature, distinctive medium characterized by user participation, openness, and network effects (Musser et al., 2007).

3 The question of identity has become central to the research agenda of many disciplines including psychology, sociology, anthropology, political science, history, philosophy and linguistics. My aim here is to briefly discuss the concept rather than review how it is presented across different disciplines.

4 The choice of *Pathfinder* 100 Hot Blogs is determined by an algorithm which uses as inputs the following factors: number of unique visitors, number of unique visitors that have left a comment, number of new registrations, number of new comments and total number of screen views.

5 On July 19, 2009, *Pathfinder* counted 17,415 blogs and 344,269 registrations.

6 For more information, visit http://www.techawards.gr (in Greek).

7 The predetermined categories that *Pathfinder* gives for "marital status" are: single, married, lasting relationship, single but not flirting, single but flirting, married but flirting, divorced, widow/widower.

8 For color meaning and symbolism, I consulted Kate Smith, a color expert and strategist. More information is available on http://www.sensationalcolor.com/color-messages-meanings/color-meaning-symbolism-psychology.html (Last access: 28 May 2009).

9 In favorite books, albums and films, italics are the default lettering of *Pathfinder*.

10 Serif fonts (e.g. Times New Roman) are characterized by tapered flourishes at the ends of letter strokes while sans serif fonts (e.g. Arial) have no flourishes at all (Boardman, 2005, p. 13).

11 All comments are rendered intact including stress omission, spelling and typos mistakes in Greek, multiple punctuation, absence of or extra spacing between words, and incomplete meanings.

12 This is an instance of Greeklish, that is to say the use of Roman-alphabeted Greek online (for more on this issue, consult Tseliga, 2007).

13 Many thanks should go to *Pathfinder's* working team, especially Zaharenia Atzitzikaki, as well as to *Pathfinder* users for their willingness to participate in my research. I am also indebted to the editor and the anonymous reviewers for their astute comments.

APPENDIX

Sophia’s *Pathfinder* profile translated into English

Personal Information

Name –
Location Tarzania
Age: –
Marital Status: Widow/Widower
Sex: Female
Occupation: I weld coffee pots and charge dearly
Status She is out (22 Jan. 08)
Add to my friends
Block user

Favorite Activities

You

Favorite Books

In the Country of Last Things - Paul Auster
Still Life With Woodpecker - Tom Robbins
SuperJack - Adam Baron
The Idiot - F. M. Dostoyevsky
The Floatable City - Maro Douka
Tell to Morphine I’m Still Looking for Her - Nicole Roussou
How Do You Dare and Feel Nostalgia, You Rascal? - Giannis Aggelakas

Favorite Albums

I would call them... “Favorite Discographies”

PURESSENCE - Archive - Portishead - Placebo -Three Doors Down - Lachuna Coil - The Killers - Way Out West - Papa Roach - Starsailor - Radiohead - The Cure - Tuxedomoon - The Stooges - Over The Rhine - Pixies - Velvet Underground - Warrant - Angie Aparo - Savatage -Muse - Arcade - Nickelback - Reamon - Moloko - Lost Bodies - Alkinoos Ioannidis - Kinoumena Schedia - Maskes - Stathis Drogosis - Dimitris Zervoudakis - Giorgos Andreou - To Schima - Epeidi - Gloam - to be continued...

Favorite Films

High Fidelity
Revolver
K-Pax
My Blueberry Nights
Romeo and Juliet
Donnie Darko
Serendipity
Under the Tuscan sun
City of Angels
Tell to Morphine I'm Still Looking for Her

Recent News

Few words are sugar, no words at all are honey!
Who said that I'm here?
POLAR
To let the love of the magnetic stone take me away
Happy crucifiers have nailed the mythology of the day up to the sky
The wild beasts and the reptiles undress themselves of their height
And their livid earthy and stony dowdiness
When the Dream is waking up
And while the leaves are talking
The fields of Silence spread out
The Stars' Time - Dimitris Liantinis (my translation)
When I won't be here anymore
what are you going to do?

Favorite Quote

What if the world is not as you have dreamt it?
What if my light dresses you in fake hopes?
The night seems to be your friend
The moon is red, touch it with your lips
I'm strange because I love…

Interests

- Culture and Society
- Arts and Civilization
- Cyberculture
- IT Education
- Editing Image/Sound

- Programming Languages
- Opinion Exchanging Communities
- Fun and Entertainment
- Friend Communities
- Comics
- Humor
- Films
- Radio
- Board Games
- PC & Video Games
- Childcare
- Music Criticism
- Amateur Music Groups
- Social Sciences
- Relationships
- Autokinesis - Motorization
- Philosophy
- Books
- Mendings
- Civil Service
- Foundations and Corporations
- Information and Media
- Online Newspapers
- Online Magazines
- Radio Stations
- Travelling

Chapter 4
Social Interaction Process Analysis of Bengalis' on Orkut®

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ABSTRACT

This study investigates what interlocutors do when they exchange messages on the social network site (SNS) Orkut® and how they do it. In so doing, the study examines the interplay of Computer-Mediated Communication (CMC) acts, interaction processes, and frequency of message exchange in text-based dyadic interactions of diasporic Bengalis on Orkut®. A total of 48 dyadic interactions were analyzed. The subjects were observed to have produced mostly bona-fide positive socioemotional content, primarily through 'greet' and 'claim'. It was also noticed that dyads who exchange utterances more than global average, produce more task-oriented content than those who exchange utterances less than global average. Task communication is achieved primarily through 'inquire' and 'inform'. 'Bona-fide positive socioemotional' content is argued to be providing users' socio-emotional needs, while 'task' communication helps them accumulate social capital. The findings contribute to CMC, pragmatics, and social psychology. It further helps common people understand the benefits of interaction on SNSs.

INTRODUCTION

Human to human interaction through the shared use of Inter-supported technologies is known as Computer-Mediated Communication (CMC; Herring, 2004). CMC has long been adopted for both instrumental and social interactions in organizational contexts (Steinfield & Steinfeld, 1986). However, only recently attention is being diverted to computer-mediated social communication (Ellison, Steinfeld, & Cliff, 2007; Honeycutt & Herring, 2009; Peña & Hancock, 2006). In fact, with the exponential growth of popularity of social network sites (SNSs), such as *Facebook*®, *MySpace*®, and *Orkut*®, more research is required to understand different aspects of users' behaviors. On SNSs, users create profiles, articulate their social networks, and establish or maintain con-

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nections with others primarily through text-based communication (boyd & Ellison, 2007).

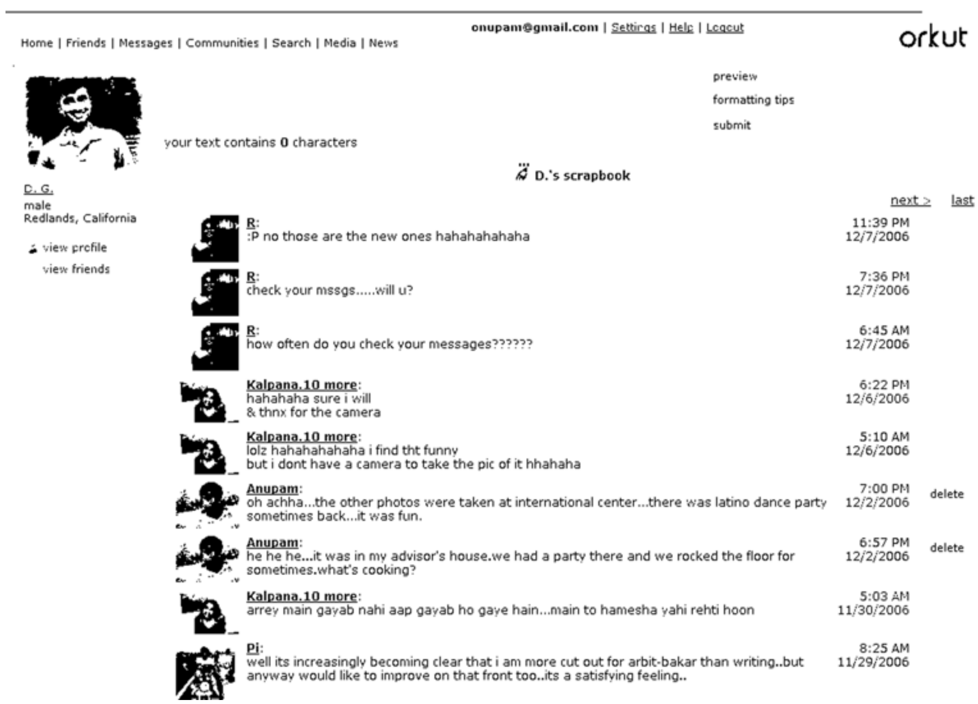
In recent years, our social mobility has gone up for various reasons. Both forced and voluntary migrations affect immigrant population socioemotionally (Jacobsen, 2002). CMC, however, plays an important role in creating and strengthening a sense of community among immigrants of the same linguistic and/or ethnic origin (Hiller & Franz, 2004). The internet in general, and SNSs in particular, offer migrants a new resource for the formation of social capital (Boase, et al., 2006; Ellison et al., 2007; Hiller & Franz, 2004). Social capital is broadly defined as the resources gathered through relationships among people (Coleman, 1988). However, very few studies have actually examined how immigrants benefit from using SNSs. It seems that inadequate empirical findings of users' behavior on SNSs and popular mass media's anecdotal reports on the bad aspects of these sites are some of the causes for some individuals' and institutions' unfavorable[1] attitudes towards SNSs. Although text-based CMC offers a potentially rich source of insight into human behavior, to date, I am not aware of any studies that have substantiated their findings by systematically analyzing actual content of the interaction that goes on these sites among immigrants.

This study addresses the fundamental question: What is it that interlocutors are doing (or intending to do) when they exchange messages on *Orkut*®? In answering the question, the study proposes a new analytical method to analyze multi-dimensional aspects of communication. Drawing from pragmatics and conversation analysis, the new method investigates the interplay of CMC acts, interaction processes, and frequency of message exchanges in naturally-occurring text-based dyadic interactions of diasporic Bengalis[2] in a small university town in the Midwestern USA. This method will be useful for researchers trying to understand the meaning of text-based CMC across languages and CMC modes since the method was developed using empirical data. Additionally, the findings of the study help us understand how conversations on the social network site, *Orkut*®, bring members of the immigrant community closer together to create a network which consequently provides social capital and socioemotional support to the members. Thus, the study helps us understand the benefits of conversations on SNSs in general.

ORKUT®

Orkut® is one of the most popular SNSs, with 67,000,000 members as of December, 2007 (Claburn, 2007). It is run by Google and was developed by a Turkish software engineer, Orkut Büyökten, in January 2004 (AskWiki, 2006). Although it originated in the U.S., *Orkut*® is popular primarily among Brazilians (53.99%) and Indians (16.91%) (*Orkut*®, 2008). It is a convergence of various media applications: profiles that users personalize to express their interests and tastes, 'friending' via links, communities, *scrapbooks* (public/semi-public, asynchronous), email (private, asynchronous), chat (private, synchronous), photo uploads, videos, etc. The friend network lets users link to their friends and traverse the resulting network of profiles. *Orkut*®'s *scrapbook* is particularly interesting as a mode of computer-mediated communication, in that senders' texts only appear on receivers' *scrapbooks*, such that the two halves of an exchange are located in different *scrapbooks*[3] (see figure 1). Further, scraps are arranged in the order they are posted, with no option for sorting by the user. Consequently, between two related scraps from any user, there may be other unrelated scraps from other users; thus the coherence of exchanges is often disrupted. The coherence may also be disrupted due to temporal gap between initiation and responses of messages between dyads. Despite this, the '*scrapbook*' appears to be the most commonly-used mode of interpersonal communication on *Orkut*®.

Figure 1. Screenshot of a user's scrapbook



THEORETICAL AND EMPIRICAL BACKGROUND

Communication Process, Socioemotional, and Task Communication in CMC.

There are several theories/views that explain how communication processes influence socioemotional and task communication among users in computer-mediated interactions, e.g., social presence theory (Short, Williams, & Christie, 1976), reduced-context cues theory (Kiesler, Siegel, & McGuire, 1984), and social information processing (SIP) theory (Walther, 1992).

Social presence theory claims that human interaction is influenced by the medium chosen for communication. Placing different communication media along a one-dimensional continuum, the degree of social presence was equated to the degree of awareness of the other person in an interaction. The face-to-face medium was claimed to be the richest and most effective while text-based communication was observed to be the least effective since it lacks audio and visual cues (Short et al., 1976). Similarly, the context cues theory argues that in anonymous CMC environment, lack of social cues is a primary cause for difficulties in coordination among participants. In examining how participants in such contexts interact, it was observed that anonymous CMC interaction generally encourages depersonalization among participants (Kiesler et al., 1984). Participants in such contexts engage in more uninhibited, impulsive negative communication such as flaming (i.e., hostile messages) than supportive task and socioemotional communication (e.g., May I help you?).

SIP, however, claims that previous research has failed to take the temporal aspect of communication into account (Walther, 1992, 1993). Walther observed that people who engage in longer tasks with unfamiliar people normally develop strategies to reduce uncertainty (Berger & Calabrese, 1975) about their partners while completing their official tasks. SIP states that over a period, anonymous participants usually move from impersonal communication to interpersonal communication and eventually provide more positive socioemotional support to each other (e.g., Wow! Well done. Keep it up.) In this process, participants try to reduce uncertainty about their communication partners by developing and testing impressions. Although SIP was conceptualized more than a decade ago, current research of communication processes in CMC appears to be in agreement with the theory.

Consistent with the predictions of SIP, Peña, and Hancock (2006) found that despite the violent nature of an online video game, participants produced significantly more positive socioemotional content than negative socioemotional and task content. Similarly, greater use of verbal paralanguage[4] (e.g., lol, i.e., laugh out loud) in multi-user-dungeons (MUDs) is found to be a significant factor for formation of impression which leads to formation of friendship eventually (Utz, 2000).

Although these studies have begun to examine social and recreational CMC, a number of research communities have stressed the need for more research examining dynamics of communication in social contexts (Blythe, et al., 2003). In fact, with the increasing popularity of SNSs such as *Facebook®*, *Orkut®*, and *Twitter®*, more research needs to be done in order to understand the nuances of communication and their impact on human behavior and vice versa.

DIASPORA AND CMC

For migrants, a specific geographic location of origin often plays a very crucial role in reinforcing and/or strengthening their personal identity; primarily because it is often the birthplace that creates strong emotional ties and continues to serve as a significant community of reference (Jacobsen, 2002). Therefore, immigrants, especially international immigrants, are likely to be affected socioemotionally. Perhaps, this is when immigrants (especially first generation) feel a greater urge to organize themselves and recreate the feelings of homeland in a foreign land. In fact, a diasporic community emerges when there is a real or imagined relationship among scattered people (Naficy, 1999).

CMC, it was observed, helps the immigrants not only in maintaining relationships with those who still live in their territorial homeland but also help them trace and contact other immigrants from the same place of origin in their newfound land (Hiller & Franz, 2004). In this way, immigrants create a sense of belonging and rootedness in their homeland. In fact, often the common interests in their location of origin and/or religion motivate immigrants to develop significant network connection online (Helland, 2007; Miller & Slater, 2000; Mitra, 1997, 2000). The trend appears to be continuing, and consequently there are thousands of virtual communities on SNSs e.g., 'Indians in the US', 'Bengalis in Chicago'. Exponential growth of these communities on SNSs offers us scope for further research.

SOCIAL NETWORK, SOCIAL CAPITAL, AND CMC

In its most simple form, a social network is a map of all of the relevant ties (relationships between the social actors) between the nodes (individual social actors within the networks) being studied (Granovetter, 1973; Wasserman & Faust, 1994). Interpersonal ties generally come in three varieties: *strong*, *weak*, and *absent*. The strength of ties is thought to be a linear combination of the amount of time spent, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie (Granovetter, 1973). Fundamental characteristics of social networks help us understand how social network controls information exchange and influence human behaviors. For example, the concept of 'closeness' helps us understand the degree of closeness of an individual node with all other nodes in a network, either directly or indirectly. It explains how members of a network access information from one another (Monge & Contractor, 2003). Similarly, 'centrality' gives an idea of the social power of a node based on how well he/she connects (ibid). Groups in social network are identified as 'cliques' if every single node is tied to all other nodes in the group and the 'degree' is a measure that counts the number of ties to other nodes in the network (Monge & Contractor, 2003; Wasserman & Faust, 1994).

Community ties and friends are long known to be a major source of social support and social capital (Barry & Wortley, 1990). Social capital is conceptualized with a variety of definitions in multiple fields (Adler & Kwon, 2002). It is conceived of both as a cause and an effect (Resnick, 2001; Williams, 2006). Bourdieu and Wacquant (1992) define social capital as "the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (p. 14). Adler and Kwon (2002) linked social capital to a variety of positive social outcomes, e.g., better public health, lower crime rates, and more efficient financial markets. It was also observed that different types of ties offer different kinds of supportive recourses (Barry & Wortley, 1990).

The Internet is argued to be a cause for both decreased and increased social capital. Nie (2001) claimed that people who spend more time with the Internet may spend less time face-to-face with others and thus, the Internet was thought to be diminishing individual's social capital. This view, however, has received strong criticisms (Bargh & McKenna, 2004). Researchers who associate the Internet with increased social capital argue that online interactions may supplement or replace face-to-face interactions, mitigating any loss from time spent online (Wellman, et al., 2001). It was also noticed that people who share close relationship communicate more often and use more medium to communicate and maintain their relationship than those who form weak ties (Haythornthwaite, 2001). Ellison et al. (2007) found that *Facebook*® usage has an impact on users' psychological well-being. They also noticed a very strong association between use of *Facebook*® and bridging of social capital. This association is often claimed to be well-suited for linking of external assets and information diffusion (Putnam, 2000; Sum et al., 2008).

While all these studies are informative in some ways, none of these studies have investigated actual content of conversations on the Internet. Since text-based CMC is a potentially rich source of insight into human behavior, one way of understanding participants' online activities is observe and analyze actual content of their online conversation. The current study adopts this approach.

METHODOLOGY

Research Questions and Hypotheses

This study poses and addresses three research questions.

RQ1: What do diasporic Bengali users primarily achieve through their text-based interactions on *Orkut*®?

Drawing from the findings of the previous research the first hypothesis is posed to address RQ1.

H1: Users will engage in more positive socioemotional communication than negative socioemotional and task communication.

Interaction Process Analysis (IPA; Bales, 1950) points out that in face-to-face interaction, people produce more positive socioemotional content than negative socioemotional and task content. SIP (Walther, 1992) predicts that, all things being equal and given sufficient time, CMC participants will interact as they would do in face-to-face situation. In fact, participants of an online video game were found to have produced significantly more positive socioemotional content than negative and task content (Peña & Hancock, 2006). Therefore, one may reasonably argue that non-anonymous CMC participants in a rather relaxed social environment will produce more positive socioemotional content than negative socioemotional and task content.

RQ2: Does frequency of contact on *Orkut® scrapbook* play a role in producing socioemotional and task content?

This second hypothesis was proposed to address RQ2.

H2: Dyads who communicate with one another more frequently on *Orkut®* will produce more task content than those who communicate infrequently.

Barry and Wortley (1990) found that people exchange more material and financial aid with those who are strongly tied to them than those who are weakly tied. In social network theories, close bonding is associated with greater frequency of communication and weak bonding is linked to infrequent contact. Later, Haythornthwaite (2001) showed people who share close relationship communicate more often and use more medium to communicate to maintain their relationship than those who form weak ties. The study assumes that in order to accumulate social capital, participants need to engage in task communication.

The final question addresses the nuances of interactional movies.

RQ3: What interactional processes and moves do participants primarily employ in achieving their goals?

The last hypothesis is formulated to address RQ3.

H3: In producing positive socioemotional content, participants will use primarily 'claim', 'desire', 'greet', 'react', and 'thank' CMC acts and in producing task content they will use primarily 'direct', 'inquire', 'invite', 'request', and 'inform' CMC acts.

IPA claims that in order to provide positive socioemotional support one needs to express solidarity, friendliness, empathy, and other feelings that can potentially bring two individuals close to each other. The current study assumes that these feelings can best be expressed through 'claim', 'desire', 'react', and 'thank'. On the other hand, IPA also assumes that task can be performed by asking for opinion, suggestions, and task information which will then be followed by giving opinion, suggestion, and task information. The present study hypothesizes that task communication can be best performed through 'direct', 'inquire', 'invite', 'request', and 'inform' CMC acts.

Data and Sampling

To test these three hypotheses, this study analyzed 48 dyadic interactions involving 19 *Orkut®* users of a diasporic community in a small university town of the Midwest USA. The conversation took place on *Orkut® scrapbook* between November 1, and December 31, 2007, for a total of 401 messages and 998 utterances. The sample consists of graduate students and their romantic partners. They were selected through snowball sampling (Goodman, 1961). Snowball sampling allows the researchers to develop a research sample where existing study subjects recruit future subjects from their immediate social network. This process is carried out until sufficient sample is gathered. Thus, the sample group appears to grow like a rolling snowball. This sampling procedure was adopted to trace any hidden members of the diasporic community.

In order to provide enough natural textual data to be representative of all participants' linguistic and communicative behaviors, two months of *Orkut®* scraps were selected. During these months, many of the core participants appeared to be actively engaged in *scrapbook* conversation with other members in the network, especially during a major Hindu festival: *Diwali/Kalipujo*[5]. The data also include enough non-festival times that normal *scrapbook* posting activity is well represented. The starting date of data collection was set as November 1, 2007 because fresh graduate students join school in the US typically in the beginning of August. Thus, the study assumed that three months was, perhaps, sufficient time to be acquainted with other existing and new members of this small community.

During these two months, participants were not aware of the study. No explicit instruction to communicate was given. However, I met with each individual member of the community on an average six times after the data were collected. The meeting with the community members helped the researcher gain their trust, and consequently they volunteered to share their scraps for the study. This sequence of data collection was followed to maintain the naturalness of the conversation. The members were also informed that all the identifiers will be properly masked in order to protect their privacy. However, they were also informed that they could withdraw their participation from the study at any given point without any problem. Scraps were collected and entered in an excel spreadsheet on daily basis. This process was adopted to prevent loss of textual data since scraps can be volitionally deleted by both the composer and receiver of the scraps at any given point.

PROCEDURE

Data analysis was performed by applying the coding and counting approach of Computer-Mediated Discourse Analysis (CMDA; Herring, 2004). The principles of CMDA are grounded in disciplines such as linguistics, communication, and rhetoric; as such, CMDA is a good fit for computer-mediated conversation analysis that is interdisciplinary in nature. Following Herring (2007), the analysis also takes account of how medium factors, such as the asynchronous nature of public *scrapbooks*, and their relatively persistent transcripts, and the distinction between personalized and generic scraps, interact with situational factors such as frequency of scrap exchange, participants' pre-existing sociopragmatic knowledge, and *Orkut®*/community/ Bangla interactional norms. Additionally, the study incorporates ideas from social network theories (e.g., Granovetter, 1973, Wasserman & Faust, 1994) and pragmatics -especially speech act and politeness theories (e.g., Leech, 2007). Finally, the relative frequency[6] of utterance exchange was measured using the following formula: the total number of utterances of each content category produced by one dyad / the total number of overall utterances produced by the dyad whereas, frequency of overall dyadic exchanges was calculated by dividing the total number of utterances posted by a dyad by the total number of weeks (i.e., eight) considered for the study.

Tools

Two categorization schemes were applied to analyze each utterance: 1) the four main content categories ('positive socioemotional', 'negative socioemotional', 'task', and 'other') of IPA (Bales, 1950) and 2) the 16 CMC act categories developed by Herring, Das, and Penumarthy (2005) for coding "speech" acts in computer-mediated discourse. The taxonomy is a simplified and modified synthesis of the act categories elaborated for spoken conversation by Francis and Hunston (1992) and for formal, deliberative discourse by Bach and Harnish (1979). In addition, each utterance was coded for two meta act categories (a) bona-fide vs. non bona-fide communication and (b) self- vs. reported perspective.

Bales's IPA consists of 12 content categories – six for socioemotional (three positive and three negative) and another six for task communication. Positive socioemotional communication consists of messages that indicate (a) *solidarity of friendliness*, (b) *tension relief, jokes, laughs, or dramatization*, and (c) *agreement and understanding*. Negative socioemotional communication includes messages that show (d) *disagreement and passive rejection*, (e) *tension*, and (f) *antagonism*. In contrast, task communication is comprised of questions and answers aimed at completing a procedure and are believed to have a neutral affective valence. This type of communication is identified as: (a) *asking for an opinion*, (b) *asking for a suggestion*, (c) *asking for task information or orientation*, (d) *giving an opinion*, (e) *giving a suggestion or command*, and (f) *giving task information or orientation*.

IPA has often been used to examine communication in both instrumental CMC (Rice & Love, 1987) and in social and recreational CMC (Peña & Hancock, 2006). Similarly, speech act analysis (SAA) is an established approach for analyzing meaning-in-context at the level of the utterance (Austin, 1962; Bach & Harnish, 1979), and has good prima facie applicability to CMC (Ross, 1970). Although both IPA and SAA are influential methods for the study of human interaction, they have attracted strong criticisms on a number of issues (Hirokawa, 1988; Searle, 1969). These criticisms generally question the assumptions of these analytical methods, such as, potential glossing over of multidimensional aspects of communication (for review, see McGrath, 1984). For example, one utterance may perform task while conveying socioemotional support. Consider the following example,

1. X @[7] Y: *amar priyo bandhobir jonno ki anbo?* (**Translation:** What shall I bring for my dear friend?)

This utterance may be considered as a combination of task and socioemotional content. For example, consider a situation where X is invited to Y's party and where X is expected to bring something for Y. However, X is not sure what may please Y and thus, decides to ask Y for suggestions. This interpretation certainly appears to be a task communication since the utterance is intended for completing a task. On the other hand, use of '*priyo bandhobi*' (dear friend) in the utterance conveys the sense of solidarity between X and Y which may be interpreted as positive socioemotional content. IPA alone fails to account for such complexities.

The current study acknowledges these criticisms and consequently, proposes a new way of analyzing the meaning in context to unveil multidimensional aspects of communication. By applying IPA, CMC acts, and meta act analysis, the researcher is able to investigate the multidimensional aspects of communication. The categories of IPA are particularly helpful in identifying transactional vs. social dyadic interaction. However, the detailed categorization of IPA was redundant. On one hand, it overlaps with the speech act categories; on the other hand, it is unable to bring out the nuances of interactional moves fully that speech act categories can. In addition to three main content categories, the 'other' category was added to account for utterances that did not fall in any of the three categories. In identifying interaction process, the utterances were scrutinized for their main proposition and associated proposition by examining primarily the verb phrase. However, contextual information was also considered in deciding the focus of the proposition. For instance, if the verb phrase appears to convey a task communication and the associated proposition is a socioemotional communication, then the utterance is categorized as task communication.

The CMC acts provide nuanced characterizations of interactional moves which gives us a sense

Table 1. Identification and description of four IPA content categories (the examples used are actual utterances composed by the participants of this study)

Main IPA category	Identification	Example
Positive socioemotional	Utterances seemingly intended for generating positive feelings, e.g., motivation, cheer, empathy, joke, complement etc.	*tomar sathe aalap hoye bhalo laglo.* (**Translation:** It was nice meeting you.)
Negative socioemotional	Utterances seemingly intended to generate negative feelings, e.g., disagreement, challenge, insult, ridicule etc.	*shei jodi hoy....ami jachchi na.* (**Translation:** If that is the case, I am not going.)
Task	Utterances seemingly intended to complete a procedure e.g., information exchange, events planning etc.	*ei ujjal da ke bole dekhte paris ekbar sunday script-ta porar jonno.* (**Translation:** Hey! You may request Ujjal to read the script.)
Others	Utterances that cannot be clearly identified as any of the above three categories	*O aapni!!!* (**Translation:** I see. It is you!)

of how a particular type of communication was performed. The existing speech act taxonomies were not suitable for analyzing CMC data since they are either for analyzing spoken conversations or for formal deliberate discourse. CMC, on the other hand, is neither spoken nor written (Crystal, 2001; Herring, 2001, 2007). Thus, there appeared to be an immediate need for developing a more appropriate set of taxonomies that can analyze textual CMC conversation. This category was developed by using textual data from three modes (i.e., Synchronous chat, asynchronous bulletin board, and asynchronous blog) of Quest Atlantis. Quest Atlantis is a 3D multi-user environment for children aged between 9 and 15. Table 2 indicates how CMC acts were conceptualized.

Finally, meta-linguistic aspects of communication are captured through meta act categories. For meta act analysis, each utterance was coded for two meta act categories:

- Self-perspective vs. reported perspective

Self-perspective is the default in CMC act analysis; the acts produced are presumed to represent the perspective of the utterance producer. In the case of reported acts, the reported act (embedded utterance) itself will often be the most relevant for act analysis, in which case the act code is assigned to it, rather than to the matrix (embedding) clause.

- Bona-fide vs. non bona-fide communication

Bona-fide communication is the default in CMC act analysis; that is, the utterance producer is presumed to be producing acts sincerely and in good faith. Examples of non bona-fide communication include lies, irony, sarcasm, and humor. I coded non bona-fide utterances as if they were sincere, but added a code that indicates that the utterance is non bona-fide.

For example, utterance 1 will be coded as task communication (IPA), invite (CMC act), bona-fide, self-perspective (meta act).

On the other hand, consider the utterances in 2 and 3.

2. Shlpk @ Anbr: *tumi ki periodically mathai grasscutter chalacchonaki?* (**Translation:** Are you using 'grass-cutter' (lawn mower) on your head periodically?)

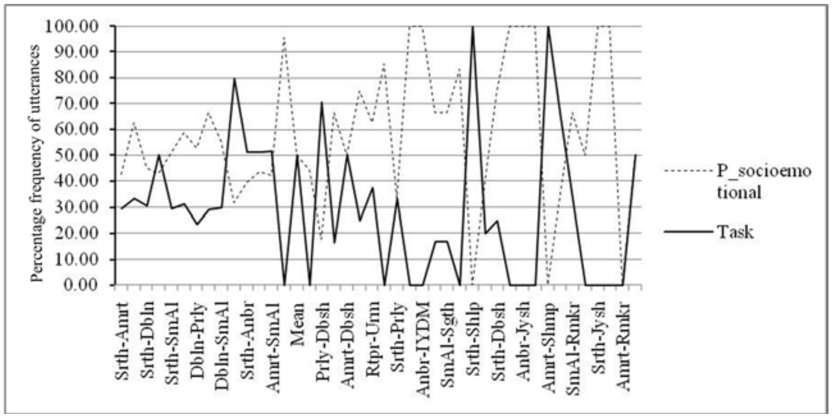
This utterance was intended to tease Anbr who was sporting short hair for a long period. The background information was gathered from Anbr's profile photo on the day the scrap was posted to his

Table 2. Identification and description of CMC acts (the examples used are actual utterances composed by the participants of this study)

CMC act	Act intension	Example
ACCEPT	Concur, Agree, Acquiesce	ok boudi as u wish:) (Translation: Ok sister in-law as you wish ☺)
APOLOGIZE	Humble onself, Self-deprecate	O sorry, bhul hoye gechhe. (Translation: I am sorry. It's my mistake.)
CLAIM (Make a subjective assertion; unverifiable in principle)	Assert, Guess, Speculate	kal bepok enjoy korechi. (Translation: I enjoyed a lot yesterday.)
DESIRE (A cover term including three categories of irrealis situation)	Desire, need (desiderative), hope, wish, dream, speculate (hypothetical, counterfactual), promise (future action)	ebar theke engraji tei kotha bolbo. (Translation: From now on, I will speak in English.)
DIRECT (Attempt to cause action)	Require, Prohibit, Permit, Strongly advise	tui chobi patha. (Translation: Send me the photos.)
ELABORATE	Comment on, Explain, Paraphrase a previous utterance (usually one's own)	tumi group chobi gulo pathiyo… ogulo amar camera-te nei.. (Translation: Please send me the group photos… they are not on my cemera.)
GREET	Greeting, Leave Taking, Inquiries about/ wishes for well-being	tomakeo subho bijoya. (Translation: I too wish you shbho bijaya[8].)
INFORM (Provide "factual" information; verifiable in principle, even if untrue)	Inform, State	ami aloo r dum anchhi. (Translation: I will bring potato curry.)
INQUIRE (Seek information)	Inquiry, Neutral/Marked Proposal	kintu tahole ke ghoshona korbe? (Translation: But, who will anchor then?)
INVITE (Seek participation/acceptance)	Solicit input, Include, Suggest, Offer (Provide goods or opportunity)	ta ebar tomar opinion ta janao. (Translation: Well, now you should let me know your opinion.)
MANAGE (Manage discourse)	Organize, prompt, focus, open or close discussion, preamble, etc.	dekho ki bole. (Translation: Let's see what he has to say.)
REACT (Show listenership, engagement – positive, negative, or neutral)	Endorse, Approve	besh besh. (Translation:Very good.)
REJECT	Disagree, Dispute, Challenge	tai jodi hai, ami jachhi na (Translation: If that is the case, I am not going.)
REPAIR	Return, Clarify, Correct Misunderstanding	ami kintu thik ta bolini (Translation: I did not mean that.)
REQUEST (Seek action politely)	Direct or Indirect Request	ektu dekhbe?? (Translation: Would you please find it for me?)
THANK	Appreciate, Express Gratitude	thank uuuuuuuuuuu… (Translation: Thank you.)

scrapbook and also from Anbr himself by talking to him personally. This reflects the importance of recording textual data on the day these were posted as well as personal communication with the subjects. Taking all these information into consideration, the utterance was coded as negative socioemotional (IPA), inquire (CMC act), non bona-fide and self-perspective (meta acts). Similarly, utterance 3 was coded as positive socioemotional (IPA), claim (CMC act), bona-fide and reported perspective (meta acts).

Figure 2. Relationship between frequency of utterance exchange and frequency of types of content expressed (Y axis represents percentage frequency of utterance)



3. Srth @ Shmp: *Indr bollo thanksgiving-e naki darun ranna korechile!* (**Translation:** Indr said that you cooked some excellent food on thanksgiving.)

For applying these coding categories to utterances, scraps were divided into separate units based on number of utterances they contained. In so doing, all the spam scraps and scraps those contained only emoticons were disregarded. Additionally, a few other scraps that seemed to have been accidentally posted multiple times were counted as a single entry for the analysis. Finally, an utterance was identified as a word or combination of words (often a complete sentence or phrase) that make some sense in a context. While coding, utterances were read in the order they were posted in order to gather contextual information.

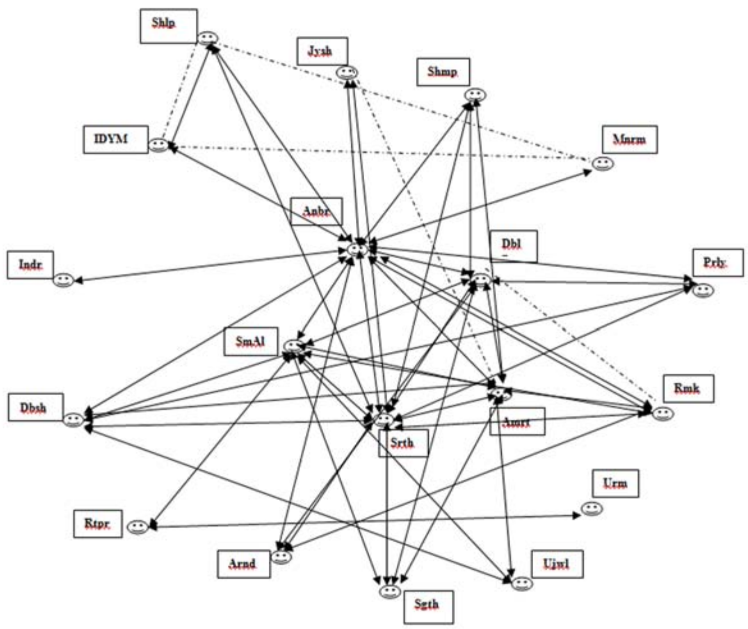
Prior to applying these coding schemes on the data, two native Bengali speakers (including the author) were provided the background information of the utterances if available and explained how these categories were conceptualized. They applied the coding schemes on 15% of the data. After they reached a significant level of agreement (83%), the coding schemes were applied to the entire sample.

FINDINGS

The corpus of 998 utterances from 401 scraps was analyzed to test the three hypotheses. Since the focus of the study was to understand how participants communicate to achieve their goals, the study analyzed the data by using content analytic approach. No inferential statistical analyses was conducted on the data since the sample size was small (N=48 dyads). However, findings of the analysis were presented in terms of descriptive statistics to better understand the communicative patterns of the participants. Additionally, the study also presents one table and two figures. The table represents frequency of dyads' average utterance exchange per week. Figure 2 establishes the connection between frequency of dyads' overall utterance exchange per week and the ratio of their positive socioemotional vs. task content. Finally, Figure 3 represents users' social network based on their communication link.

Consistent with the predictions of SIP (Walther, 1992) and IPA (Bales, 1950), findings of the present study show that main proposition of majority of the utterances are positive socioemotional (51.30%) followed by task communication (34.27%). Only 9.83% of the utterances consist of negative socioemotional content; while 4.60% of

Figure 3. Diasporic Bengalis' social network (the pointer indicates the directionality of dyads' scrapbook conversation)



the utterances are coded as the 'other' category. Consequently, the first hypothesis was supported. In examining the impact of social network on the participants, the analysis reveals that in terms of relative frequency, dyads who exchange more than global average number of utterances also produce more task content than those who exchange less than global average number of utterances per week. The global mean of utterance exchange per week by the dyads was 2.59 (+/-1Std 3.97). The following table displays the frequency of conversation between dyads per week.

Relationship between dyads' average number of overall utterance exchanges per week with their positive socioemotional and task content is shown in the following graph. The dyads were

Table 3. Frequency of overall utterance exchange per week by each dyad

Srth-Amrt	**Amrt-Dbln**	**Srth-Dbln**	**Anbr-Amrt**	**Srth-SmAl**	**Anbr-Dbln**	**Dbln-Prly**	**Anbr-SmAl**	**Dbln-SmAl**	**Srth-Arnd**	**Srth-Anbr**	**Srth-Shmp**
21.63	12	8.63	7.25	6.38	6.38	6.38	6	5.88	5.5	5.38	4.86
Amrt-SmAl	**SmAl-Dbsh**	**Srth-Sgth**	**Prly-Dbsh**	**Dbln-Shmp**	**Amrt-Dbsh**	**Anbr-Indr**	**Rtpr-Urm**	**Amrt-Ujwl**	**Srth-Prly**	**Anbr-Prly**	**Anbr-IYDM**
4.13	3	2.38	2.13	1.5	1.25	1	1	0.86	0.75	0.75	0.75
Anbr-Dbsh	**SmAl-Sgth**	**SmAl-Rtpr**	**Srth-Shlp**	**Dbln-Sgth**	**Srth-Dbsh**	**Anbr-Rmkr**	**Anbr-Jysh**	**Anrb-Ardm**	**Amrt-Shmp**	**Dbln-Arnd**	**SmAl-Rmkr**
0.75	0.75	0.75	0.63	0.63	0.5	0.5	0.36	0.36	0.36	0.36	0.36
Srth-Rmkr	**Srth-Jysh**	**Anbr-Mnrm**	**Amrt-Rmkr**	**Amrt-Sgth**	**Anbr-Shmp**	**Anbr-Rmkr**	**Anbr-Shlp**	**SmAl-Ujwl**	**Shlp-IYDM**	**Dbsh-Ujwl**	**Arnd-Rmkr**
0.25	0.25	0.25	0.25	0.25	0.13	0.13	0.13	0.13	0.13	0.13	0.13

arranged from the left (highest dyadic average of overall utterances per week) to the right (lowest dyadic average of overall utterances per week) on the X-axis.

The result indicates that 40% of the content comprises of task communication among dyads who exchange more than the global average numbers of utterances per week. On the contrary, only 20.5% of the content consists of task communication that was produced by dyads who exchange less than the global average number of utterances per week. The figure also indicates that all but a few dyads produce more positive socioemotional content than task content. Therefore, the result supports the second hypothesis.

Interestingly, there emerged some patterns of interactional move that dyads employed to express four different types of IPA content. The analysis reveals that little more than 59.23% of positive socioemotional content is comprised of 'claim' (18.25%), 'desire' (7.77%), 'greet' (22.14%), 'react' (5.25%), and 'thank' (5.82). Additionally, 20% of the positive socioemotional content also consists of 'inform' (13.78%) and 'inquire' (9.72%). In contrast, nearly 82% of the task content is comprised of 'direct' (7.69%), 'elaborate' (9.47%), 'inform' (29.88%), 'inquire' (16.57%), 'invite' (9.76%), and 'request' (8.28%). The analysis also reveals that majority of the utterances are 'bona-fide' (93%), and they convey addressors' 'self-perspective'. Therefore, the result supports the last hypothesis, i.e., in producing positive socioemotional content, participants will primarily use 'claim' 'desire', 'react' and 'thank', and in producing task content, they will primarily use 'direct', 'inquire', 'invite', 'request', and 'inform'.

A network diagram is presented to better explain some of the fundamental characteristics of the diasporic community's communication pattern. The network, however, does not indicate dyads' frequency of utterance exchange.

The following characteristics were observed from the network diagram (figure. 3). First, a 'clique' is formed involving Amrt, Anbr, Dbln, SmAl, and Srth. These five participants not only connect to each other but also exchange maximum number of utterances in the network. They are also the 'stars' of the network since they bind most nodes in the network. Out of total 18 nodes that one can potentially connect, Anbr connects 14 nodes, Srth connects 12, Amrt connects 9, SmAl connects 9, and Dbln connects 8. Nodes that are moderately connected to other nodes are Dbsh (6), Rmkr (6), Prly (4), Arnd (4), Sgth (4), and Shmp (4). Second, Urm is the only node that is not directly connected to any of five 'stars' of the network. Third, all but four dyads (i.e., Arnd-Rmkr, Rtpr-Urm, Dbsh-Ujwl, and Shlp-IDYM) that form the periphery of the network are not directly connected to each other. Fourth, Amrt-Jysh, and Dbln-Rmkr are married couples and IYDM-Mnrm-Shlp are roommates. These special relationships are indicated in the diagram through the dotted line.

DISCUSSION

During my face-to-face meetings with the members, I learnt that all but three participants (Amrt, Dbln, and SmAl) are graduate students. These three were housewives during the data collection phase. Except for Anbr, all the other members of the clique had known each other for at least a year. Anbr, though a fresh graduate student when the data were collected, managed to become a part of the clique primarily because of his popularity due to his outgoing personality and some special traits. Some members confirmed that he sang well and took interest in sports. Some of these claims were also reflected in their *scraps*.

4. Srth @ Anbr: …kintu amader khelar ki holo? (Translation: …What about our plan for playing a game?)
5. Anbr @ Srth: sonibar dupur bela ba sokal 11.00 nagad khelte jawa jete pare...... othoba

robibar o hote pare...... tomar kokhon subidhe amake janiyo...... sei moto time fix kore nebo amra.....kemon? (Translation: How about playing on Saturday after noon or 11 o'clock in the morning? If that does not work for you we can do it on Sunday. Let me know what time is convenient for you. We can decide according to your convenience. Is that all right?)

6. Dbsh @ Anbr: tor galai sei gazsal ato bhalo legechilo je akhono mone ache. (Translation: I still remember the beautiful 'ghazal' (a type of Indian song) that you sang.)

One may notice that in planning an event (5), Anbr saves his addressee's 'negative face' by offering a few options. Consequently, he manages to offer an approachable personality to his addressee. It may be argued that given the options between, neutral, hostile, and friendly personalities, most people feel more comfortable with the friendly 'faces' than others.

Politeness is a set of pragmatic norms that encompasses all linguistic and social forms of expression which help human beings achieve the goal of pleasant co-existence in a society (Brown & Levinson, 1987[1978]). Drawing from the dramaturgical theories of Erving Goffman's (1967) concept of face, Brown and Levinson (1987 [1978]) argued that humans in all cultures and societies are 'rational' and that they have a 'face'. A 'positive' or a 'negative' face identifies positive and negative politeness. Positive politeness refers to the hearer's desire to be liked and understood, whereas negative politeness refers to the hearer's desire to act freely. There appears to be a functional connection between being polite and providing positive socioemotional support and exchanging social capital. Members of the diasporic community appeared to have used the following politeness related constraints to provide socioemotional support to each other:

(a) Addressor places a high value on addressee's qualities, i.e., *generosity* (e.g., Shmp @ Srth: *aare darun darun photo upload korechho to dekhc*hhi!!!! Translation: You have uploaded very impressive photos.)

(b) Addressor places a high value on his/her obligation to addressee, i.e., thanks and apologies (e.g., SmAl @ Anbr: thanku thanku. Translation: Thank you very much.)

(c) Addressor places a low value on addressee's obligation to addressor, i.e., responses to thanks and apologies (e.g., SmAl @ Anbr: oto thanku dite hobe naa. Translation: You do not need thank me.)

(d) Addressor places a high value on addressee's feeling, i.e., greetings, sympathy (e.g., Amrt @ Srth: Dhrt ke aar tomai ALL THE BEST janalam porikhar jonno. Translation: I wish Dhrt and you all the best for your exam.)

These findings are consistent with the propositions of Leech's (2007) Grand Strategy of politeness (GSP). GSP claims that in order to be polite, addressor expresses or implies meanings that associate high value with what pertains to other person (mainly the addressee) or associates a low value with what pertains to addressor. It turned out that two of the most commonly used constraints are (a) and (d) in providing positive socioemotional support. Most compliments appeared to be directed to the participants' photos posted to *Orkut®* album and participants' performance in the local events. It was also noticed that people who exchange more utterances than global mean, tend to compliment each other more than others do. I argue that with the increased frequency of contacts people gather more background information about one another that eventually help them build confidence in their relationships. Consequently, they overcome the fear of being misunderstood and express their opinions freely and the conversation moves from impersonal to more interpersonal (Walther, 1992). Recent study on politeness also indicates that friends exchange compliments more frequently and more elaborately than acquaintances do (Das, 2009). Following is a typical example of giving compliment.

7. Amrt @ Srth: daroon profile name ta.... (Translation: Your (Orkut®) profile name is very impressive.)

In contrast, constraint (d), (i.e., 'greeting' and 'sympathy') is used among most members in the network. Majority of the nodes in the periphery were fresh graduate students and thus, new in town. Consequently, they did not have enough background knowledge of other nodes in the network and were, perhaps, hesitant to communicate frequently. Married couples and the roommates in the network did not communicate among each other on *Orkut®* perhaps, because they speak to one another on daily basis in face-to-face situation. This phenomenon reflects that *Orkut® scrapbook* is a platform that is often used among people who know each other offline but do not meet each other in face-to-face situation frequently.

'Greeting' often plays very important roles in interpersonal relationships. It is important to recognize two types of greetings that often surface on participants' *scraps* - *ritualistic* greeting and *regular* greeting. Ritualistic greetings are exchanged among dyads during special occasions, such as, 'Durga puja', 'diwali' etc. For example,

8. Anbr @ entire group of friends: *Wish u a very happy Diwali.*
9. Mnrm @ Anbr: *Thank u and same to you.*

During such festivals individuals often compose one greeting (often impersonalized) and send it to their entire network (one degree of separation). This way, members in the network stay in touch with maximum number of people with minimal effort. Additionally, these ritualistic greetings can potentially provide some positive socioemotional support to the members of the diasporic community. International immigrants feel nostalgic during religious festivals, especially if those festivals are not observed in their newfound land (Helland, 2007). Consequently, immigrants turn to the Internet to create a bonding with those who experience similar feelings. This type of greetings might thus serve at least two purposes – satisfy members' sentimental/emotional needs and offer opportunities to become part of the network.

Regular greetings, on the other hand, are generally used to recognize other people's presence in a physical or virtual space, to initiate a conversation, and to stay in touch with other members in the network. For example,

10. Anbr @ Srth: kemon acho? (Translation: How are you doing?)

The regular greetings, in contrast to ritualistic greetings, are primarily used among the dyads who exchange more than the global average number of utterances. This type of greetings is used especially after an unexpected prolonged absence of meeting offline and/or conversations either in an online situation or in a face-to-face context or both. Regular greetings are unlikely to be used to acknowledge someone's presence in the asynchronous scrapbook. Unlike the face-to-face and synchronous environment, in asynchronous environment participants usually do not get any signals of their friends' presence. Therefore, one may conclude that the participants volitionally compose the 'regular greetings' to stay in touch with other members in the network.

Dyads, on the other hand, engaged in task-oriented conversations primarily in the following ways: (a) gather information about local resources (e.g., Amrt @ Srth: amra noodles n company te khelam..... try koro, khoob bhalo khabar aar daam tao oto na!!! Translation: We have eaten at noodles and company. You may try their food. The food is very good and reasonably priced.), (b) gain knowledge about information technology (e.g., SmAl @ Amrt: ami facebook-e a/c korechi ekta... amake game ta pathiyo to. Translation: I have created an account on Facebook®. Can you please forward me the game.), and (c) plan events (e.g., Srth @ Amrt: dec er chuti ta porle amader barite ekta potluck kora jete pare. Translation: How about having a potluck party at our place in the break in December?). It was observed that the dyads who contribute more utterances than global average also exchange more task-oriented content than those who contribute lesser than global average. This is because greater frequency of communication is likely to increase the degree of closeness and strengthen cohesive bonding between dyads. Since task communication often involves observing negative politeness (e.g., request, inquire etc) or violating negative politeness (e.g., direct), certain amount of confidence in relationship may help participants use these acts in conversation. Alternatively, these findings may also be explained in terms of Coleman's (1990) notion of debit/credit system. It argues that people holding most debits are those holding most social capital.

If I am someone in the network to whom many owe debts, many will have frequent contact with me (perhaps in hopes of accruing more goods or resources, or perhaps to assure me that the debts will be repaid), and many will trust me, as I am obviously someone who can follow-through and provide resources in a time of need. (Prell, 2003, p. n)

Similarly, the members of the clique in the current diasporic network appeared to be more resourceful than others in the network. The background information reveals that these members often organize and participate actively in Bengali social and religious programs in town. One of them was also actively involved with a few voluntary organizations. Therefore, members in the periphery of the network (i.e., relatively new members of the community) may be expected to gather information from the resourceful members in the network. Following scrap also indicates that the members who form clique were resourceful.

11. Shmp @ Srth: *aar ki ki cinema enechho???* aamader ekha naa hole nebo tomar theke......... (Translation: What movies (CDs/DVDs) have you brought? We will borrow them from you if we think we haven't watched them yet.)

However, why do people want to be a part of any network? One possible explanation may be drawn from the concept of *small talk* and types of socio-psychological benefits it offers.

Malinowski (1972[1923]) conceptualized 'small talk' as 'phatic communication'. He described it as 'language used in free, aimless, social intercourse' (p. 149). Although, there is disagreement among researchers whether small talk is actually 'aimless', most people consider that small talk is primarily used in 'free' and/or 'social' communication (see, Coupland, 2000).

Although *Orkut®* is generally perceived as a virtual platform for socialization, the findings indicate that certain amount of task-oriented conversation takes place here as well. However, the nature of task content seems very different from those found in work environment in previous studies (see, Holmes, 2000; Mullany, 2006). Unlike task in workplace, task in social context is under no formal obligation to be completed. Therefore, task-oriented content found in this study was considered as part of the small talk.

Shave (2007) equates small talk with 'oral dependency need'. 'Oral dependency need' refers to infants' desire to "be central in importance, to be the center of favorable attention, to be free of any unpleasantness, and to be emotionally attached to someone who could provide all this" (Shave, 2007, p. 8). It was so termed because whenever kids seem uncomfortable, mothers first try to comfort them by providing breast milk (Engle, 1962). Shave argues that 'oral dependency need' influences human behavior so much that at any given point we expect to be comforted. Therefore, we usually expect comfortable surroundings around ourselves. In fact, small talk conveys the feeling of "everything is, was, and will be, all right." Consciously or unconsciously, we tend to find people who are perceived as pleasurable. People who have shared knowledge of culture, language, and place of origin are seemingly the ones who can understand one another and thus comfort each other; particularly in a foreign land.

CONCLUSION AND FUTURE RESEARCH DIRECTIONS

The analytical approach incorporated in the study indicates that a meaningful analysis is possible by analyzing the content of dyadic conversations in a network. Additionally, background information gathered through face-to-face meetings with the members proved to be helpful in explaining the dynamics of the network, as well as interpreting content. Frequency of contact appeared to have influenced the dynamics of dyadic conversation. Dyads who communicate more frequently than others also accumulate more social capital than others. However, in general, positive socioemotional content appeared to be more prevalent than any other types of content.

Like most other studies, this study also has some limitations. Although findings are indicative of the beneficial aspects of use of SNSs, they may not be generalized beyond this particular network and *Orkut*®, since the sample size was small. In fact, the methodology used for the study may be hard to apply on a large sample, since it involves constant follow up of users' online as well as offline behaviors.

Future research should investigate how frequency of utterance exchange in the network changes over time and with those patterns of communication, involving relatively larger sample of immigrant and/or non-immigrant communities. It may also be interesting to learn what role existing members of the network play and how new people are incorporated in the network.

This chapter will be helpful for those who are interested in analyzing the meaning-in-context at the level of utterance in CMC. The findings of the study contribute to sociolinguistic and communication theories about CMC acts, interaction processes, and social networks in CMC from the perspective of a lesser-studied culture group, Bengali. Therefore, the study is also significant as regards Internet multilingualism and plurality. SNSs such as *Orkut*® are growing in importance; the study sheds light on the nature of communication and the social dynamics of a small immigrant community that take place in such environments. Finally, the analysis indicates that if used responsibly, SNSs can contribute to users' personal growth. *Orkut*® functions as a shared cultural space for diasporic Bengalis - a 'virtual Bengal' in which members provide primarily positive socioemotional support to each other and perform some tasks. More broadly, the results suggest that *Orkut*® is a space where cultural groups can thrive.Thus, the study contributes to discourse behavior, digital communication, language, and social interaction.

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KEY TERMS AND DEFINITIONS

CMC: Human to human interaction through the shared use of Inter-supported technologies.

CMC Acts: By text-based conversation, we perform something.

Diaspora: A population sharing ethnic and/or linguistic background who left their homeland, and became residents of a new place that is far from their homeland.

Politeness: A set of pragmatic norms that encompasses all linguistic and social forms of expression which help human beings achieve the goal of pleasant co-existence.

Small Talk: A casual form of conversation in a socially appropriate context.

SNS: A virtual platform where users create profiles, articulate their social networks, and establish or maintain connections with their 'friends' primarily through text-based communication.

Social Capital: The resources gathered through relationships among people.

Social Network: A map of all of the relevant ties (relationships between the social actors) between the nodes (individual social actors within the networks).

ENDNOTES

1 Social network sites are not apparently accessible at many academic institutions and corporate houses in India and other parts of the world.

2 Bengali/Bangla, a language of the Indo-Aryan branch of the Indo-European language family, is one of the major South Asian languages, standing at seventh largest, with a total of 171 million native speakers (Gordon, 2005). Bangla is native to the region of eastern South Asia known as Bengal, which comprises the Indian state of West Bengal and present day Bangladesh. The natives are known as Bengali. This study focuses on Bengalis who were born and raised in West Bengal India.

3 In 2008, Orkut added a new feature 'view this conversation' to the scrapbook. This feature lets users view their conversation with other people at one place.

4 Paralanguage refers to the non-verbal elements of communication used to modify meaning and convey emotion.

5 Diwali is a Hindu festival of lights when Bengalis worship Hindu goddess 'Kali' (goddess of death and destruction).

6 In calculating the average numbers of each types of content category produced by the

participants, the analysis discarded the outliers.

7 @ sign is used as an addressivity marker.

8 The last day of four day long durga puja (a popular Hindu festival widely celebrated among Bengalis) is known as *bijaya dashami* and on that occasion Bengalis wish each other *shubho bijaya*.

Chapter 5
Membership and Activity in an Online Parenting Community

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ABSTRACT

Recent studies have shown that British women, especially mothers of young children, spend a particularly large amount of time online. Many are logging on to parenting websites. This chapter investigates Mumsnet, a large British parenting site, and evaluates how members use and conceptualise the site. A combined method of a questionnaire survey with open and closed-ended questions, and discourse analysis of discussions on the site, was used to explore this. The analysis considers how membership and expertise are displayed and acknowledged in online groups, how people view their involvement with the site, how online and "real life" are segregated or integrated in various ways. The positioning of "lurkers" (those who read but do not post) and of "trolls" (those who post false information or fake identities) is explored within the context of how power is reproduced and challenged in the type of discourse produced in an online discussion forum.

INTRODUCTION

The use of the internet has increased phenomenally in recent years across all social groups and age groups, but recent studies suggest that a new group has become particularly enthusiastic about internet use – women in their 20's and 30's are now the dominant users of the internet in the UK (Nielsen/Net Ratings, May 2007). While teenage girls are using the internet for blogging and social networking, slightly older women are logging on to the many parenting communities on the Internet. Parents, and in particular mothers, are a significant and growing group of Internet users and there are thousands of websites offering to provide advice, resources and products. Allen and Rainie's 2002 study suggested that 70% of US parents used the Internet compared to 53% of non-parents and that parents are more

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likely to access health, lifestyle-enhancing and religious information. As Rothbaum et al point out in their study of parents' reliance on the Internet to find parenting information, society is becoming increasingly mobile, meaning that relatives and friends may not be readily available to give advice. While the majority of such online sites are provided by parenting experts, with limited possibilities for parents themselves to show their knowledge, there is a growing number of sites where parents can talk directly to parents and offer support and advice themselves.

"Mumsnet" was established in 2000 by a sports journalist and TV producer who had met at antenatal classes. The aim of the site is to **'**To make parents' lives easier by pooling knowledge and experience**'.** The site receives more than one million visitors each month and Mumsnet Talk, the discussion boards, attracts around 20,000 posts every day. The site has been described as an 'internet phenomenon' (*The Daily Telegraph*), 'a virtual shoulder to lean on' (*The Observer*) and the 'daddy' of all parenting sites (*The Times*). Its perceived influence with British mothers has lead to scheduled webchats with politicians such as the leader of the main opposition party, the Secretary of State for Health and the Leader of the House of Commons and Minister for Women. Prime Minister Gordon Brown has cited Mumsnet as a 'great Internet organisation'. Not all publicity has been positive, however. In 2006 the parenting author Gina Ford sued the website for libel after negative comments were posted about the methods she advocates.

Both researchers are members of Mumsnet and met on the discussion boards. Permission to link to a survey hosted by one of their universities was given by the owners of Mumsnet, and their dual identity as long-term site members and academic researchers was made clear to all participants. This mirrors the example of previous researchers into online parenting communities (Madge and O'Connor, 2006).

BACKGROUND

With the growth of parenting sites has come a related growth in research into the use and discourse of such sites. In the UK, this growth can also be attributed to a growing concern about the state of parenting and an appreciation of the benefits of such websites from government departments. Madge and O'Conner's research into empowerment of new mothers through the UK-based website BabyWorld focused on the ways the site provided virtual social support and alternative information sources for new mothers. However, they argued that the site reinforced traditional stereotypes of mothering and unequal gender roles. Their research focused on how the website offered parents a safe space in which to communicate, but also enabled them to occupy positions of agency in the production of parenting-related knowledge. Madge and O'Connor concluded that BabyWorld was used mainly by white, middle-class, heterosexual women and that the culture of mothering that emerged from discussions on the site was traditional and conservative. Sarkadi and Bremberg's work on the Swedish website the Parents Network (FöräldraNatet) suggested that use of parenting websites could cross the "digital divide", with lone parents and those with lower levels of education and income finding support from this website. They agreed with Madge and O'Connor that website users believed that the opinions and advice of other parents are more valuable than the advice of experts.

While BabyWorld and the Parents' Network are used by both working-out-of-the-home and stay-at-home mothers, Chan's 2008 investigation of a Hong Kong-based parenting website, HappyLand, focused on the way in which working mothers used this website to perform maternal role identities whilst separated from their children. Using the website mainly to share parenting joys and frustrations, the users were able to act out their gender role identity as mothers whilst physically situated at their workplace. A similar study of the US site ivillage.com, aimed at providing support for women combining paid work and family life, looked at discursive strategies in advice generated on the site, and concluded that the site, set up as a commercial enterprise, promoted "individual consumer-based solutions for a primarily middle-class audience over politics addressing the gendered division of labors" (Worthington, 2005: 43).

Chan's investigation focused on a small group of users, as did the research of Drentea and Moren-Cross, who explored a group of users of a specific bulletin board of a much larger US-based parenting website. They explored the way in which the community fostered and maintained social capital through three main types of communication: emotional support, instrumental support and community building and protection.

While not based on a parenting website, Hall and Irvine's investigation of an email-based support group for new mothers in Canada showed many the same attributes of community building, provision of emotional support, information sharing and the provision of validation for the 'normalcy' of other women's mothering experiences. Another, historical, example of communication between mothers comes from the archives of the Co-operative Correspondence Club, a group of 24 mothers who circulated a collaboratively produced magazine in which they recorded and discussed their lives and experiences over 50 years – encompassing the trauma of the Second World War, but also including subjects discussed today in online parenting communities, such as childbirth and divorce (Bailey, 2007).

Despite the description of the majority of such sites as parenting websites, most of the research mentioned above was based on mothers rather than fathers. Indeed, as Sarkadi and Bremberg point out, even in Sweden, with relatively high gender equality and explicit social policies promoting involved fathering, aimed at increasing fathers' involvement in childrearing, the lack of fathers as members of these parenting websites and respondents in related research is pointed. They agree with Madge and O'Connor that such lack of involvement indicates the continuance of traditional familial stereotypes online. Whilst it is described as being 'by parents for parents', the choice of the name 'Mumsnet' acknowledges this state of affairs. Little research has been focused on fathers' use of parenting websites, although Fletcher et al found encouraging signs of Australian fathers' readiness to utilize electronic information.

METHODOLOGY

Our approach combines traditional field methods applied to the internet (an online web survey with closed and open-ended questions), together with analysis of online discussion in the website. A survey open to all users of the site was conducted in autumn 2008. In addition, selected "threads" – online discussions – which related to the survey questions were analysed to consider how cultural knowledge, including normative assumptions, common-sense knowledge and cultural tropes, emerge out of people's everyday descriptions.

Our analysis of the online discussions utilises elements of discourse analysis and ethnomethodology to understand how participants on a website understand their and others' activities on the forum. What activities are participants doing in their online posts, and what resources are they drawing on to perform these activities (Potter, 2004; Antaki, 2007)? How do these discourses (re)produce or challenge dominance (van Dijk, 1993)? There are methodological problems of applying discursive approaches to chatroom or internet forum data – for example, sequencing issues and timing of responses are obscured on fast-moving threads where people are often replying to a thread which has received other responses as they write. It is difficult to determine the size and composition of an online group since individuals are able to take on multiple identities with pseudonyms and email aliases that disguise their characteristics and facilitate deception. Despite the acknowledged limitations, researchers are increasingly finding ways of adapting these approaches to online communities. For example, Lamerichs and te Molder (2003) used discursive methods in the analysis of issues of identity in forums, Panyametheekul and Herring (2003) used notions of turn-taking allocation, and Antaki et al (2005) used conversation analysis to consider the management of accountability in online forums. We aim to explicate how internet forum members display their understandings of, and reasonings about, their opinions and activities. As participants describe their lives in chatroom posts, they are also involved in the maintenance of social structures and in the alignment and realignment of the social order (Goodwin 1997; Drentea and Moren-Cross 2005).

Demographics of Survey Sample

There were 391 respondents to the survey. 93% of the respondents were mothers, 0.3% fathers (one respondent), 1.7% were other carers (e.g. grandmothers) and 1% (four respondents) were not parents or carers. Thus our sample mirrored the mother dominance reported by previous researchers, perhaps not surprising in a website called Mumsnet.

The Mumsnet sample appears to be a comparatively older group of mothers, with three-quarters of the respondents aged between 31 and 50. In contrast, the mothers in Drentea and Moren-Cross's sample had an average age of 30 while in the BabyWorld sample 76% were under 35.

The majority of respondents were based in the UK. 82% of these lived in England and 43% of these English respondents lived in either London or the South East. This dominance of the capital replicated the findings of Sarkadi and Bremberg's study, which found that the region of Stockholm was over-represented.16 respondents lived overseas, most of these being British ex-pats. The majority (80%) of respondents had one or two children, and in contrast to other parenting sites, only 22.8% of the children were under two, reflecting the wider user group of Mumsnet. Apart from the Swedish study, research into parenting forums has tended to focus on mothers of babies and toddlers. Our findings demonstrate the uses of the Internet by mothers of a wider range of ages and with a wider range of children.

RESULTS AND ANALYSIS

The survey questions, and resulting analysis, were focused around three specific research questions.

1. Membership and Expertise: How do posters construct their and others' membership of a community, and how is "expertise" in parenting and other issues displayed and acknowledged?
2. The nature of online activities: In what ways is an online discussion on this site similar, in participants' opinions, and in advice outcomes, to talking to other parents in real life, and/ or to receiving professional advice or counselling for a problem?
3. Interactions and segregation between "real life" and online communication: How do people use this site for "real life" purposes?

Membership and Expertise

While the site allows official "membership" by subscription, we use the term here in the ways that site users use it – a "member" is someone who sees themselves, and is acknowledged by others, as "belonging" to the site. This concurs with ethnomethodological understandings of membership (e.g. Sacks, 1992; Lepper, 2000; Stokoe and Smithson, 2001), in which membership is displayed in local interaction by speakers' actions and others' responses to these. Similarly, on this website, "expertise" is taken by participants, and by us as analysts, to be demonstrated by posters' positioning of themselves as experts in a particular area, and by other posters' acknowledgements of this expertise. The speaker's use of, or hint at, an identity category is locally effective (Antaki, 2007). "Expertise" is displayed and acknowledged by how recipients orient to an utterance (Hutchby, 1995), in this case a post. As well as the construction of membership by frequency and acceptability of posting, a "hierarchy" is acknowledged by members, drawing on length of posting, popularity of poster, and on expertise in a particular area, for example breast-feeding, childbirth, human resource issues or religion. While the internet is often lauded as a non-hierarchical space, which facilitates equality of interaction, research on forums regularly demonstrates the re-construction and maintenance of traditional hierarchies – for example Panyametheekul and Herring (2003) demonstrated how participants maintained traditional gender hierarchies in a Thai chat room. In many groups a minority of core members generate the majority of contributions (Nielsen, 1997).

On Mumsnet a hierarchy of frequent, popular posters, 'newbies' (new posters) and lurkers is established.

some kind of "pecking order which makes me feel uncomfortable posting on certain topics/areas or on threads started by certain posters[1][1]

Threads such as 'Your favourite Mumsnetter' lead to the listings of the names of frequent or popular posters. Smaller groups are established within 'clubs' for particular birth months, or threads that support posters experiencing similar problems, for example with conception, sleeplessness or children with special needs, and members of such groups look out for one another on the larger discussion boards. In the survey, 36% of respondents agreed that they looked out for posts from certain posters and 30% agreed that they avoided posts by specific posters.

Linked to this was a theme that arose frequently in the survey: the perception that Mumsnet was dominated by cliques. For example, in response to a question asking whether there were any threads that respondents avoided:

Any of the long chat threads like scuttlebuggers or whatever they call themselves. Or the one where they make virtual cups of tea and hand round cakes (weird emoticon)

Another respondent stated:

There is quite a middle class English vibe to mumsnet and it's a bit boring actually – I'm using mumsnet less and less as I find it a bit cliquey.

Thread analysis suggests that there is also a perceived gulf between the more established Mumsnetters and 'newbies', with a frequent thread theme being the complaint that newbies are ignored.

Certain members of Mumsnet have established themselves as resident experts, most commonly by frequently answering queries in one particular area and by making reference to their own work experience. This establishment of expertise is acknowledged by other regular posters and when difficult or complex questions arise in these areas, their advice may be called for:

Extract 1

By OneLieIn Sun 29-Jun-08 22:27:20

I am in a right mess at work and need some HR advice – I can't ask my HR dept as I don't have one really and also they are not on my side.

Anyone out there to help? please???

*By*Ready4anotherCoffee*Sun 29-Jun-08 22:48:30*

bumping you in the hope Flowery is about!

In response to a query about breastfeeding, a poster is directed to the Mumsnet breastfeeding expert:

Extract 2

TinyTimLivesinVictorianSqualor Fri 14-Dec-07 22:08:06

My best advice here is keep bumping til tiktok answers! It's not something I know about tbh, but congrats on the pregnancy anyway.

Unlike some parenting sites, there are no official experts on Mumsnet and any advice given is explicitly understood to be from one parent to another. However, the majority of such experts are understood by members to work in these fields. In her analysis of discussion threads on HappyLand, Chan suggests that the lack of resident 'specialists' such as teachers or counsellors on the website leads to much more of a community atmosphere. While Mumsnet also avoids official specialists, it is interesting to note residents experts have been established by popular acclaim. The majority of the established 'experts' base their status on their work in the field, whether that field is breastfeeding, childbirth, human resource management, medicine, the law or social services. Madge and O'Connor and Drentea and Moren-Cross emphasise the way in which parenting sites offer mothers the opportunity to find support and information from other mothers rather than (the male-dominated) health profession. However, the establishment of acknowledged experts on Mumsnet suggests that, while Mumsnetters look for general advice and support from other parents via the Internet, they particular appreciate professional advice sourced from another parent. In this, our findings agree more with Hall and Irvine, who found that their group of Canadian mothers relied heavily on healthcare providers and passed on their advice to others in the group.

The importance of demonstrating appropriate behaviour in online forums has been addressed in recent research. In a context where people cannot use normal interactional cues to determine the "genuine" identity of a speaker, the ways in which posters use structural features of interaction, as well as content of their posts, to demonstrate their validity as members or experts, become paramount. Lamerichs and te Molder (2003) explored how users of a forum display appropriate forum user behaviour in the content of their posts. Antaki et al (2005) showed how posters do interactional work to demonstrate accountability. On Mumsnet, expertise is frequently challenged – sometimes with reference to trolling since long-term members of the site remember a long-running troll who dispensed legal advice, and was 'called for' in a similar way to the examples given above, for some months before being outed and ousted.

The issue of trolls is central to understanding how membership of a site is established. Herring et al (2002) note the limited amount of research undertaken into trolling on discussion forums. They define a troll as an 'individual who baits and provokes other group members, often with the result of drawing them into fruitless argument and diverting attention from the stated purposes of the group'. Their research investigated trolling on a feminist discussion forum and the difficulties for such an online forum to reach agreement about what to do about trolling. Similar debates on the subject of trolling happen frequently on Mumsnet, with disagreements about whether or not trolls should be banned or simply ignored. There is also regular debate on the blurred boundary between a "troll" and a normal poster.

Extract 3

*By*Marina*on Wed 01-Oct-08 13:26:09*

Agree there VS, I think there is a grey area where posters get a bit carried away and may unintentionally err into troll territory.

I think poetic licence/exaggeration for effect/parallel existence are pretty common on here and if no-one gets hurt, fine.

On Mumsnet, as well as those calling for the suspected troll to be banned or ignored, other responses are permitted. For example, it is possible for a poster to agree that the original poster probably is a troll, but nonetheless still answer the question in case someone else in the same position is reading – or will read from the archives – the thread. There is a clear consciousness that the archives are being read for advice, presumably because this is something that many of the posters do themselves. Therefore there is an argument that the troll may be bringing up an issue that needs a thoughtful answer, for example discussion about miscarrying or premature births.

There can also be enjoyment of the notion of trolling as a leisure activity.

Extract 4

By Pruners on Tue 26-Feb-08 18.44:58

we were due a good troll-outing

my fave was the one that descended into haiku

By SheherazadetheGreenFacedTroll on Tue 26-Feb-08 18.46:46

i love a good troll hunt, i miss lav and her crazy gun toting ways.

Accusations of trolling are tied into the establishment of hierarchy on Mumsnet. Newbies and less frequent posters rarely accuse someone of trolling, although they may agree when one of the more frequent posters makes such an accusation. Accusations of trolling can thus be used to establish and maintain a poster's position in the hierarchy of Mumsnet.

Extract 5

*By*LolaTheShowgirl*on Wed 01-Oct-08 13:11:49*

they get people so emotionally involved in their 'problems' that other genuine posters often get labelled as trolls if their real problems seem so far-fetched but are actually true and that puts the newbies off because all the trust has gone

When accused of trolling, posters may draw on a variety of resources to account for their posting, for example, the poster in extract 6 lists a variety of issues that have arisen on Mumsnet over the years, thus establishing not only her "genuine poster" status, but also that she is not a newbie.

Extract 6

By 3rdwiseman Wed 04-Jun-08 11:10:30

(not a troll, I know all about cod, the bat, soapy's christmas appeal, the grapes, the tablecloth, the macaroons, the cube of poo etc)

The joint low status in the forum hierarchy of newbie and troll is noteworthy – neither is permitted to post controversially without challenging by regular posters with established identities. In this discussion forum, new posters are expected to demonstrate membership by patterns of posting approved by the regular posters.

Given that Mumsnet claims to receive one million visitors a month it is obvious that the majority of visitors do not post on the discussion boards but are instead lurkers. Twenty-four survey respondents identified themselves as lurkers, although the majority of these respondents admitted to posting very occasionally. Lurking rates are highly variable across different communities, although there is evidence to suggest lower rates for health support communities (Preece, Nonneche and Andrews, 2004). In large and very active communities, such as Mumsnet, lurking may even be desirable. One million posters could cause severe problems for the size and speed of the site.

Preece et al identified five main reasons for lurking on discussion boards: not needing to post; needing to find out more about the group before participating; thinking they were being helpful by not posting; not being able to make the software work; not liking the group dynamics. Some of these reasons can be found in the Mumsnet lurkers' responses, in particularly, the feeling that there was no need for a response from them because someone else had already answered the question:

Sometimes read others' comments and think "That's good. Can I really add anything else?"

Everyone always says what I want to say but much more eloquently, so I'd just end up posting "what (s)he said" a lot!

Others felt no need to post, perhaps because their questions had been answered already:

if I want to know something I can usually find the same kind of question has been asked before

or because their needs were met purely by reading the discussion threads:

I started just coming on Mumsnet to read advice on particular subjects, and didn't get into the habit of posting.

While no respondent stated that they had problems with making the software work, others did refer to external issues, mainly time-related, that made posting difficult for them:

Frequent interruptions from children

often read without posting. not sure why, perhaps lack of time, or I'm usually doing several things at once and reading posts is quicker/easier than posting

One respondent admitted that she did not post because:

I find coming up with a talk name intimidating.

However, the most frequently given reason for lurking was that of not liking the group dynamics, particularly the already noted perceived cliquiness of the discussion forum. 15 out of 24 lurkers admitted to not posting because of concerns about how their post would be received:

Highly critical/judgemental responses of some posters

Lurking is fun and being jumped on by total strangers can be scary

A lot of the regular posters are very confident in what they write. I feel that if I post something that they don't agree with, then I may be publicly ridiculed.

Afraid of the response. Posts get ignored. To be honest, it's a bit cliquey.

Preece el al also found that, despite not posting, most lurkers identify with a community and think of themselves as members. Our survey supports that finding, with lurking respondents commenting:

given me an identity "mumsnet type (you know)

A sense of feeling part of an on-line community'.

The lurkers' constructions of site identity without posting raises interesting questions about silence and membership in research and natural contexts. This study suggests that lurkers can be understood to be members, albeit hidden ones.

The Nature of Online Activities on this Website

Parenting sites are typically "marketed" as being a meeting-place for parents, and may receive funding for the advice or help they offer to parents. It is therefore relevant to consider the nature of the activities occurring online. In what ways is an online discussion similar, in participants' opinions, and in advice outcomes, to talking to other parents in real life, and/ or to receiving professional advice or counselling for a problem? 40% of respondents felt that the online discussion was similar to talking to parents in real life, 5% felt that it was like receiving professional advice or counselling, 43% felt it was a bit of both, while 13% felt it was similar to neither.

I don't post on contentious issues, just offer advice, ask questions. I only read more opinion based threads. I really dislike confrontation, even via the web, so avoid posting that could cause offence, although I'm often shouting at the screen!

While views were mixed about the exact nature of online activities, many respondents were clear about the importance of the online discussions; there were a variety of comments about the intensity of online activities

I feel a little out of my depth at the moment about someone who has got too deep.....she has scared me to be honest and I am scared for other MNetters as I feel they are being dragged in to deep too.

Moreover, 42% of respondents said that if they had a concern or problem, they were more likely to post about it on Mumsnet than talk to family or friends first (compared to 51% who would talk to friends or family first). 69% said that there were things they talked about on Mumsnet that their offline friends did not know about.

Previous research into parenting websites has emphasised the supportive nature of such sites, and has made connections to the fact that they are used primarily by women. Madge and O'Conner commented on the supportive and encouraging nature of BabyWorld and suggested that, in general, flaming is not found in woman-centred groups; while Drentea and Moren-Cross describe the way in which the community worked quickly to re-establish peace any time a thread was contested. While many of the respondents to our survey commented on the supportive nature of the site, it is clear that a livelier, possibly more aggressive type of posting was seen as part of the Mumsnet 'style'. Trolls were enjoyed for their inventiveness, accusations were made of cliquiness, and witty, educated posts encouraged. Mumsnetters can subscribe to a weekly round-up (by a site member) of that week's most witty posts. Posters who use text speak or write with poor spelling and grammar can expect to receive criticism of their writing style by "gatekeepers" of the site's perceived norms, rather than supportive comments on their problems.

Extract 7

*By*ju*Sat 18-Aug-07 22:38:43*

Dear Dabbles please, I beg you, don't use text-speak. It makes it frightfully difficult to read what you are posting

Extract 8

By **Mamazon** Thu 10-Apr-08 12:04:50

if someone types in text speak it takes me ages to decipher it …. I judge them.

I read the post and think that they are clearly a 14 year old on the half term.

or worse, i imagine them to have greasy hair, missing teeth and living in a caravan.

Mumsnet even offers a discussion topic entitled 'Pedants' Corner' where the misuse of apostrophes, grammatical errors in newspapers and letters sent home from school, and the failings of the English language are discussed in great detail.

Throughout the discussion threads there is an expectation that posters will do their best to write not only intelligibly but intelligently if they wish to receive responses. This can be appreciated: several survey respondents commented on the way in which Mumsnet had helped them improve their writing skills. However, other posters can perceive such pedantry as further establishing a dominant clique of well-educated, middle-class English posters. "Dabbles" responded to the criticism of Ju in Extract 7 above by starting her own thread complaining about being picked on for using textspeak.

Extract 9

By **Dabbles** Sun 19-Aug-07 19:00:13

grr. am just sick of being picking on for using 'u and ppl'

The response to such complaints is often the suggestion that the poster seek out 'other parenting boards' where, it is implied, standards are lower.

Extract 10

By Slouchy *Sun 19-Aug-07 19:53:22*

Other sites are less judgemental. But not so much fun.

So type your posts in full (typos are allowed though) and quit moaning. Or defect.

This more challenging, witty tone may also account for the survey findings related to satisfactions gained from Mumsnet. Respondents were given a choice of a variety of satisfactions and could select any number of them or detail other satisfactions they found in Mumsnet. By far the most popular choice was not support (64%) or advice (86%) but entertainment, with 91% respondents indicating that Mumsnet was entertaining. Related comments included 'a bloody good larf!', 'fun' and:

Currently enjoying it more than Real Life – and I do have a very happy Real Life

The recurrent focus on quality and grammatical correctness of posting is interesting on a parenting site, which is ostensibly conceived of to support parents, not to critique their literacy skills. It could be argued that this critical gatekeeping by members is an odd sort of support for new or insecure parents. Existing societal power relationships due to education and social status are routinely reinforced on this website.

Interactions and Segregation Between "Real Life" and Online Communication

In their analysis of personal relationships formed through online discussion groups, Parks and Floyd (1996) found that 60.7% of their sample had formed a relationship with someone they had met for the first time in an online discussion group and that these relationships migrated to other settings, for example using email communication, talking on the telephone or meeting face to face. One-third of their sample admitted to setting up face-to-face meetings, a figure that accords well with the 28% of Mumsnet survey respondents who admitted to going to face-to-face meet-ups with other Mumsnetters, although less than the finding of the *Digital World, Digital Life* study in 2008, which found that 58% of UK respondents had met up with an online friend. Respondents to our survey gave two main reasons for such a step: either to make contact with others in their local area or because they wanted to meet specific posters that they liked online:

To get me out of the house and fill some time while on maternity leave. To meet other like minded people.

A few respondents admitted to the thrill of meeting the unknown:

Because I wanted to challenge myself to go out and meet a bunch of strangers.

The majority of respondents had not attended an organised meet-up. For some this was less a choice than the result of practicalities such as distance or lack of time, but others preferred to keep their anonymity and a distinction between their real and online lives.

MN isn't really 'real' for me – wouldn't want to necessarily 'know' mumsnetters in RL, seems a bit too involved. I have enough RL relationships to spend my time on.

The benefits of integration or segregation between online and real life activity is often discussed on the boards:

Extract 11 (the original post, and a few of the responses[2[2]])

Do you admit to coming on here or similar places?

*By*travellingwilbury*on Sat 28-Feb-09 20:27:07*

I always feel embarrassed and a bit sad if I tell anyone I come on here so I tend not to

Partly because I don't want to be stalked but also because I feel a bit dweeby (real word honest) about it .

Is it just me ?

*By*Nickytwotimes*on Sat 28-Feb-09 20:29:30*

I'm afraid I am quite evangelical about mn.

I am a bit sort of apologetic about it though. As you say, don't want anyone to think I am a saddo who sits hooked to the laptop most nights. I am a saddo who is hooked to it all night, but I try to keep it to myself.

I don't use any other forums though – no time!

*By*BitOfFun*on Sat 28-Feb-09 20:54:41*

I talk about it loads, but sometimes I just say "a friend told me...", so maybe that's even sadder! Aww, that's what you all are to me though <<pished hug>>

*By*cheesescone*on Mon 02-Mar-09 16:20:33*

its my sad little secret and i somehow feel that poeple would think me a 'norman no mates' and im afraid of being stalked not that anyone wld probably find me remotely interesting oh and i am old and kids at school so feel i should really be doing something more enterprising like starting a small organic cheese farm or painting furniture in a distressed manner! or reupholstering my record collection

In these exchanges, we can see that women on this site regularly feel that membership of an online community is somewhat embarrassing, suggesting a lack of real life friends or activity. Despite recent research about the frequency of internet use for this age group of women in particular, many women consider their use of Mumsnet to be inappropriate. This may be linked to the 'entertainment' factor of the site. According to the *Digital World, Digital Life* survey, UK housewives are the most prolific users of the Internet in the world, spending 47% of their leisure time online. However, the key driver of this group is e-commerce rather than entertainment and communication – activities that are more likely to be undertaken online by younger Internet users. The Pew Internet Project report into Generations Online (2009) suggests that, unlike teens and those in their twenties, older generations use the internet less for socializing and entertainment and more as a tool for information searches, emailing, and buying products. Mumsnetters' enjoyment of the discussion boards may therefore strike them as being inappropriate, 'younger' behaviour, not suitable for responsible parents, who should only be using the Internet to search for information helpful to their families. There is a contrast between the frequency of use, and the strong affiliations which many posters (and lurkers) feel for the site, and the reluctance by many to admit to group membership.

Parks and Floyd suggested that the best predictor of whether a poster would form offline relationships was the duration and frequency of their participation in newsgroups and there is evidence that for less-frequent Mumsnet posters, the possibility of a meet-up raised fears that they would not fit in or have a recognisable 'name':

I'm not known, more of a spectator, so would feel like an interloper.

This concern about the intrusion of their online life into their real lives was also revealed by the 35% of respondents who admitted that they were concerned about by recognised by others on Mumsnet. Such fears were not groundless – 15% of respondents had been recognised on Mumsnet by someone in their real life and several gave details of how problems had arisen from this recognition.

I posted about the breakup of my marriage. My husband read my posts – realised it was me and showed his mum and the person he as having an affair

I spoke about my cousin in law visiting us too soon after birth (next day), and she was offended/hurt.

The ex-wife of a boyfriend searched me out after an article in the Telegraph about me. She still regularly lurks and reads things to find out what I'm doing and where I'm going

It has been found that women in both the UK and the US tend to be more concerned about the negative aspects of the internet (*Media literacy audit*, 2006: §6.11; Fallows, 2005). Pedersen and Macafee's (2007) research into British bloggers found that more women than men reported experiencing trouble with family and friends as a result of their blogging, and this is possibly related to the fact that women are more likely to write blogs about events in their personal lives, so-called journal blogs, rather than fact and opinion based 'filter' blogs.

A recurrent theme was the way members of the site both found Mumsnet useful and relevant, in some cases even a lifeline to sanity, yet acknowledged that it also ate up their time. Responses to the survey question about the main impact of Mumsnet often referred to this double-edged concern. It can be seen on threads too:

Extract 12

*By*thequietone*on Wed 01-Oct-08 20:53:37*

God, trolling sounds so complicated and just too much effort. Who's got the time to sit around coming up with fake stories and lives. For what???? I just don't get it.

*By*morningpaper*on Wed 01-Oct-08 20:55:28*

I really think we need to spend less time here, and more time washing up

DISCUSSION

Mumsnet is used by mothers for support. In contrast to other parenting sites researched, Mumsnet is used by a wider variety of ages and mothers of older children. This research demonstrates the "lifeline" nature of the site for many new, isolated or otherwise struggling parents, suggesting that parenting sites provide a vital support at a time when many women become mothers without strong familial or community support networks. The study however highlights the ambiguous nature of such support. There is a hierarchy – established Mumsnetters (who include 'experts'), newbies and lurkers – and newbies and lurkers complain that there are dominant cliques. While Mumsnet is 'by parents and for parents', there are acknowledged experts, and expertise is developed, supported and challenged by members. The analysis highlights the ways in which individual posters orient to a website, construct and maintain membership, and create hierarchies of acceptability, both in terms of who is accepted as a member, and what type of posts are considered appropriate. Posters were aware of the possibilities for misinformation and "trolling", and this site is notable for the relish which members took in the process of information construction and verification. Members of Mumsnet often enjoyed the lively debates, and found this to be a particular strength of a site with gentle moderation and few official experts. As well as support, Mumsnet is used for entertainment, and for development of a particular membership identity – with a posting style more abrasive than on other parenting websites, and a strong focus on wit and literacy.

In both the survey and thread analysis the dominance of a small group of articulate posters led to a perception of cliquiness from those not part of the 'in crowd'; this was a major reason given for not posting on the site, or for avoiding certain topics. The conflation of newbies and trolls in thread challenges is a notable feature of the Mumsnet hierarchy, and the survey comments by lurkers further demonstrate this.

FUTURE TRENDS

This study demonstrates the growing role that online communities play for a wide variety of people. While this chapter has focused mainly on mothers, the findings about the influence of the internet on people's social lives, as a tool for information, and the ways in which social groups are constructed, organised, and in which members and experts become involved and maintain their online identities, are applicable more generally to online communities, and in this way the study adds to the body of knowledge about changing ways of social organising and communication provided by the internet.

Methodologically, in this study, notions of cliquiness, ingroup behaviour, trolls and hierarchies were similarly described in the threads, and in the survey responses. The survey responses by lurkers and infrequent posters were of particular interest as this information would be hard to obtain by analysis of online discussions, but corroborates the discourse analysis of membership, expertise and status within the website. From a discourse analysis perspective, the popularity and speed of posts on threads on this site posed problems for sequential analysis – posters have often not read immediately preceding posts, which are being written and posted simultaneously, but are responding to discussion further down the thread, or directly to the original post. For this reason, some posts related to each other here (e.g. in extract 11) were shown without intervening posts, the responding posts shown can be seen, by their explicit orientation to the question or the poster by name, to be direct responses to the earlier posts, though not appearing as adjacent posts online. In one case (extract 7), the poster started a new thread to respond to another poster's criticism. This is a challenge for any sequential analysis of online discussion, and particularly so for a large, fast-moving site. However, other aspects of a discursive analysis can profitably be applied to online discussion – in this study, notions of reproduction of power and hierarchy, exploration of members' categories and orientations, and a fine-grained analysis of posters' orientations to other posts, and the accounts participants produce of their activities online.

CONCLUSION

The combined approach of quantitative survey, open-ended survey questions, and a related discursive analysis of forum posts, provide a detailed understanding of how one particular parenting community is used, and adds to the body of knowledge of online communication and interaction. A picture arises of an environment that offers its predominantly female users support, entertainment and advice, although this support is limited by the perceived dominance of a clique and by group membership norms and hierarchies, including acceptable ways of posting depending on "status" in the group's hierarchy, and the requirement for the poster to deliver well-written entertainment at the same time as seeking advice. Distinctions between the nature of this parenting site and others were observed by posters, and comparison of this website analysis with other similar analyses corroborates the unique nature of each website, with the development of particular norms and expectations.

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KEY TERMS AND DEFINITIONS

Discourse Analysis: An approach to the analysis of naturally occurring talk that considers the social actions and consequences achieved by the words' use, and the resources which participants employ to achieve these actions.

Discussion Boards: An online bulletin board where users can leave messages and receive answers.

Lurker: Someone who reads posts on a forum but never or rarely posts.

Membership Categorisation Analysis: (MCA): A method for locating and analysing the locally used, invoked and organised membership categories in everyday conversation.

Mumsnetter: A user of the Mumsnet discussion boards.

Newbie: A new poster on a forum.

Troll: Someone who posts under a fake identity, posts information they know to be false, or who deliberately posts information to cause trouble.

ENDNOTES

[1] Two types of qualitative data are used in this chapter. Free text survey responses are shown in italics, data taken from the talk boards is shown as numbered extracts in italics, with speaker's name and post time.

[2] See note in Discussion section about sequential organisation of threads for analysis of this website

Chapter 6
The Sociolinguistics of SMS Ways to Identify Gender Boundaries

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ABSTRACT

The chapter aims to observe sociolinguistic aspects of SMS with a view to identifying gender boundaries. Ever growing text-based communication through mobile phone triggers an important question: Do we need to review the parameters – phonological variations, stylistic range e.g. discourse analysis and conversational interaction – for gender identification? Having suggested a new parameter to gender identification, the study draws on: (a) SMS varieties between female to female, male to male, male to female texter (b) SMS varieties to identify gender variations, and (c) the sociolinguistics of SMS for gender identification. A corpus of over 300 SMS messages was collected from students of different age groups spread over educational institutions in Pakistan. The data were enlisted under five variables: compressions, abbreviations, symbols, tenses and punctuation to investigate variations among male and female texters on the former variables. Two more factors, use of mother tongue and second language, were also analyzed to address the research questions (a-c). The data analysis reveals that SMS texting identifies gender boundaries and the evolution of some sociolinguistic variations among the texters.

INTRODUCTION

Short Messages Service (SMS[1]) text based communication in many forms is proliferating in the lives of most people. The popularity of text messaging has come to evoke interesting discussions among sociolinguists how to identify genderlects[2] through SMS corpus. The terms *SMS*, mobile text messaging and texting are used interchangeably in the present study.

Different linguistic choices by males and females have led to a number of language and gender studies in the recent years (Gray 2007; Montgomery 2000; Yule 2007; Trudgill 2007; Wardhaugh 2004; Macaro 2005; Napoli 1996; Doughty 2005; Ellis 2001; Jule 2005; Sudo 2007; Cameron 2005; Shehadeh 1999).

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However, SMS texting and genderlects have not received considerable attention. This chapter aims to identify gender boundaries[3] through SMS corpus analysis.

Reid (2006) concludes in his study on "Tex-mates and Text Circle …" that texters are more likely to be younger and female. The evidence that young females are more likely to use and benefit from electronic communication is also found in the Pew Trust's project (2001) on the Internet and American Life and Ling's study (2006) on the sociolinguistics[4] of SMS. The kinds of SMS that are exchanged among male and female texters depend on the nature of the relationship between them. The phrase "time passing" occurs frequently in discussions of texting between males and females. This time passing activity gradually takes over and becomes an integral part of the social and economic life of the youths. It is among the teenagers that the culture of SMS lives predominantly (Rafi, 2008). Castells (2006) reinforces the aforesaid point that across the globe adolescents and young adults are playing very active roles in adapting and appropriating services such as SMS. Thurlow (2003) says that young people are the slaves of growing text messaging culture. Haig (2002) reinforces the fact in a study, showing that 90% of teenagers claim to text more than they talk on their phones.

SMS follows differential paths of diffusion and use according to age, gender, class, ethnicity, race and culture, and it is appropriated by people in terms of their values and needs. Some researchers have doubted that gender boundaries can be drawn through SMS corpus analysis. Most gender differences observed are found to be statistically insignificant. For example, in an online survey in Spain, Valor and Sieber (2003) conclude that there is no significant gender difference in the usage of mobile phone. Although the male teenagers are more likely to use the mobile phone for fun, the researchers declare that this is not a very important aspect. Female teenagers are also found to be using the mobile phone because it makes them more available for others to contact; whereas, boys tend to have a more technical and autodidactic interest in the phone. In Turkey, Israel, and Norway, researchers have identified little or no differences in how men and women use mobile phones (Nordli and Sørensen 2003; Öczan and Koçak 2003; Lemish and Cohen 2005). However, the present study assumes gender boundaries can be delineated in SMS corpus collected from males and females. This parameter is discussed in more detail in the background and research design of the study.

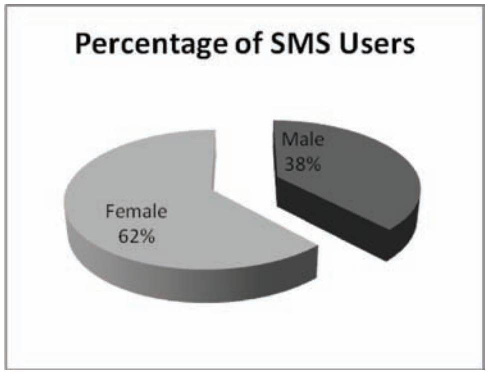
BACKGROUND

In some cultures, there are marked differences between male and female speech. Yule (2007), while discussing a dialect survey, says that female speakers tend to use more prestigious forms than male speakers with the same general social background. That is, forms such as *I done it*, *it growed* and *he ain't* can be found more often in the speech of males, and *I did it*, *it grew* and *he isn't* in the speech of females. We can conclude that males regress to colloquial expression; whereas, females tend to produce so called standard version of a language. SMS messages indicate that both males and females opt for non-standard or admixture of languages, which have given a birth to a new and creative variety. This seems to be challenging the stereotype[5] that females tend to opt for standard varieties; whereas, males regress towards non-standard choice of these varieties in a speech community[6].

Rafi (2008) explains in a study on "SMS Text Analysis: Language, Gender and Current Practices" variations among males and females in texting messages. Pointing out this dichotomy in Figure 1, he says that 38% males and 62% females prefer SMS for communication respectively.

Ling (2006) concludes in his study that although men are early adopters of mobile phone technology, it is among the females that the

Figure 1.



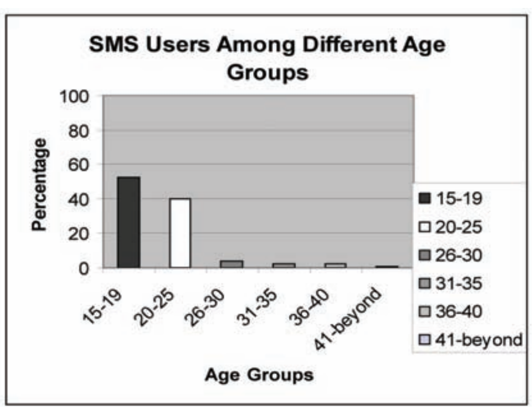
great percentage of SMS exists. Sattle (1985) and Treichler (1983) also conclude that females write longer messages and have a more complex structure than males. At the same time males are particularly oriented toward simple "one thought" messages (Ling, 2006).

The previous researches show that a higher frequency of SMS exists predominantly among the teenagers. Among the texters surveyed by Rafi, 52% were teenagers (15-19 years of age) and 40% were in their early twenties (20-25 years of age). The study further shows that 4%, 2% and 1% SMS is exchanged by rest of the age groups. The bar chart in Figure 2 also supports the belief that culture of SMS exists primarily among youths.

British Broadcasting Company (BBC) (March 4, 2003) reports that text messaging has long been blamed for declining standards of spelling and grammar particularly in paper and pencil writing. A 13-year-old Scottish girl handed in an essay written in text message shorthand; she explained to her flabbergasted teacher that it was easier than Standard English.

She wrote: "My smmr hols wr CWOT. B4, we used 2go2 NY 2C my bro, his GF & thr 3:- kids FTF. ILNY, it's a gr8 plc." ("My summer holidays were a complete waste of time. Before, we used to go to New York to see my brother, his girlfriend and their three screaming kids face to face. I love New York. It's a great place").

Figure 2.



Although the present study does not draw on the losing quality of English orthography but it attempts to support the underlying assumption of the study that females' writing style mark gender boundary. A separate study may be conducted to determine the influence of electronic communication on spelling habits. The present study contributes to the sociolinguistic analysis of SMS and adds to the parameters of gender identification.

RESEARCH DESIGN

The study addressed the research questions: (a) SMS varieties[7] among female to female, male to male, male to female texters (b) SMS varieties to identify gender variations, and (c) the sociolinguistics of SMS for gender identification. Both the qualitative and quantitative approaches were carried out to address the aforesaid questions. The corpus was collected from students of different educational institutions in Pakistan. A sample of 300 SMS: 100 each SMS from female to female, male to female and male to male were selected purposely to address the research questions (a to c). The data were distributed over five variables: compressions, abbreviations, symbols, tenses and punctuation to investigate variations between male and female texters. Two more factors: use of mother tongue (L1) and second language (L2) were also considered to identify gender boundaries among the texters. That is who uses a relatively higher proportion of L1 or L2 in text messaging. Discourse analysis of the data was also carried out to see the social aspects of SMS messages.

The study brought into consideration the demographic variables such as age, gender and background of the respondents while interpreting the data. Average age of the respondents was 20-25 years. They were studying various programs under: applied sciences, administrative sciences and social sciences in different universities of Pakistan. The respondents had 14 years of education, in which they studied Urdu and English languages as compulsory subjects. Mobile text messaging had very integral role in their every day communication.

The data collection process had some limitations. Ethically, it was not possible and appropriate for the researcher to seek corpus of SMS messages on private matters of the respondents. They might have filtered such messages while sharing data for this study.

RESULTS AND DISCUSSION

Table 1 shows that SMS texting reflects more use of compressions (e.g. clas, instead of class; gud, instead of good; plz instead of please; u instead of you; r instead of are; tel instead of tell, etc.) rather than using standard spellings of English language. But the ratio of using compression in SMS differs on the basis of gender, as is shown in (Table 1: column I). Moreover, the compressions used in SMS are highly communicative – illustrating common grounds of mutual intelligibility between the sender and the receiver.

Table 1.

	Compressions	Abbreviations	Symbols	Tenses	Punctuation
Female-Female	55%	15%	10%	17%	61%
Male-Female	48%	2%	25%	6%	49%
Male-Male	30%	14%	20%	8%	44%

Percentage of SMS Variation among Different Variables

After detailed analysis of the data, a striking point to note is that in female to female and male to male texts, the ratio of using abbreviations is almost equal (15% and 14%) while in cross-gender texts, this ratio is very low i.e. only 2% (Table 1: column II) and most commonly used abbreviations are PC (Please Call), AOA (Assalamu Alykum), SMS (Short Messages Service) etc. Crystal (2008) supports the point of brevity of SMS lexical items in his article on "Why texting is good for language." Ling (2006) concludes that females use abbreviations and symbols significantly more than males. He holds up the fact that about 20% of 13-15 year old females used abbreviations; whereas, only 3.5% of 35-44 year old females used them. The present study does not show significant gender variations on the usage of abbreviations in SMS messages.

Moreover, symbols like:-) ;-):-(;-(are used to express moods such as of happiness, sadness and mischievous behaviour in texts in an unusual way. Again the ratio of expressing moods through these signs varies with the variation of who is communicating with whom, regarding gender aspect (Table 1: column III). It is evident that 10% - 25% and 20% of the words in the message corpus for each type of interaction were emoticons.

The data reflect that females use standard grammatical structures more while messaging with other females (17%); whereas, within, this ratio is quite low (6%) and in male to male texts ratio of using standard grammatical structures (8%) is somewhat in between (Table 1: column IV).

The data indicate that use of punctuation (., ?) is more prominent among females who may intend to bring more clarity in their SMS than males, as shown in (Table 1: column V). The finding that female texters use more punctuation is parallel to the finding of Ling (2006) that females use punctuation slightly more than males but the relationship does not appear to be significant.

Percentage of L1 and L2 Usage

Table 2 shows percentage of L1 usage as compare to percentage of L2 usage in texts. Maximum usage of L1 (81.9%) is found in male to female texts; whereas, this percentage decreases to 67.8% and 77.2% in the cases of male to male and female to female text messaging respectively. This trend shows admixture of other dialects, varieties and languages with mother tongue.

In the Figure 3 nodes represent concepts, and lines represent links among the nodes with respect to gender. The shorter the line, the closer the link is between male and female texters over usage of L1, L2, compressions, abbreviations, symbols, tenses and punctuation. Position of the nodes and links among them indicate differences and mark gender boundaries.

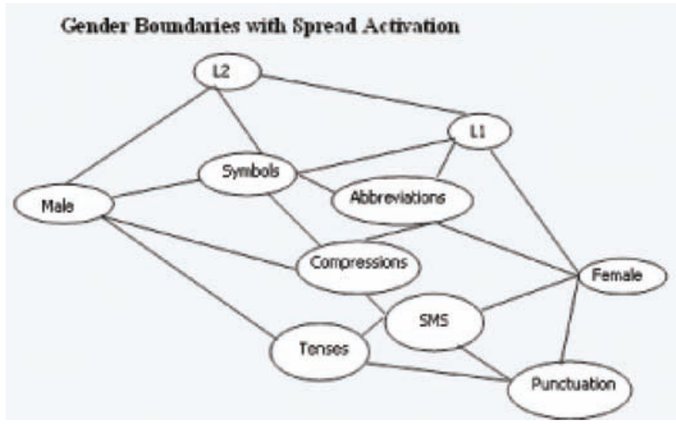
The following is the interpretation of SMS corpus with regards to language and society, which brings further elaboration to the research question: (c) the sociolinguistics of SMS for gender identification.

1. Females use standard language more than males in text messages. This is illustrated through (column IV, V) table 1 and table 2

Table 2.

	Use of mother tongue (Urdu)	Use of second language (English)
Female-Female	77.2%	22.8%
Male-Female	81.9%	18.1%
Male-Male	67.8%	32.2%

Figure 3.



where females use 22.8% English language while sending SMS to other females with 17% usage of tenses and 61% usage of punctuation. In contrast to these results, use of English in male to male texts is more i.e. 32.2% but with considerably less usage of tenses (8%) and punctuation (44%), which suggests that the grammatical structures may not be as accurate as those used by female texters.

2. An interesting trend is observed related to use of symbols in SMS. Females tend to use fewer signs while messaging with other females; whereas, they use more signs in texting with males. An opposite drift is found among males who use more emoticons in SMS to their male fellows, and they draw fewer when sending SMS to their female fellows.
3. Whenever, there is discussion about examinations or studies in texts, females tend to show more concerning and encouraging behavior towards their female colleagues, almost same trend is found in male to female texts, while in male to male texts these issues are taken frivolously. Table 3. illustrates the point further.
4. In all three categories of sample (female to female, male to female, male to male) the length of SMS depends on the purpose of communicating through texts, and there is no correlation between male and female frequency of long texts.
5. Females use SMS mostly to inquire or to inform the recipient about something e.g. *Do u hve room keys? I m sending u pics, wl u opt for 3 or 2 courses? When bus wil leave?* etc. Whereas, male texters usually discuss an issue once they start and almost the same trend is found in male to female texts.

Table 3.

Female	Female
Aoa. Hw r u mje nmonia ho gia tha is liye jwab nahi dy ski or mre ppar drop ho gae (Assalam-o-alikum. How are you? I was suffering from Pneumonia; therefore, I could not respond to You and failed to appear in the exam).	*Oho. Chalo ziada pareshan na hona paprs ki wja s. Allah k hr am mein koi na koi bahtri hoti hy. Ab kesi tabiat hy?* (Come on, don't worry because of exam. It may be God's will. By the way, how are you now)?

CONCLUSION

The analysis indicates that SMS texting identifies some gender boundaries. Females use various devices to achieve brevity – abbreviation, acronyms, compressions more than males do; however, the present study does not show significant difference in the abbreviation of SMS text between males and females. There is a significant relationship between gender and the usage of standard grammatical structure, punctuation and mother tongue. The study puts weight behind the stereotype that females tend to adhere more to norms and standards in their communication than males do. Independent research may be carried out to explore this stereotype: whether this conformity has been gradually decreasing over the years.

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ENDNOTES

1. The abbreviation SMS stands for *short message service*. SMS is also often referred to as texting, sending text messages or text messaging. The service allows for short text messages to be sent from one cell phone to another cell phone or from the Web to another cell phone.
2. A variety or lect which is specific to or particularly associated with male or female speakers.
3. The term used to draw variations between male and female in term of language choices in mobile phone messaging.
4. A term used to describe all areas of the study of relationship between language and society other than those, such as ethnomethodology, which are purely social scientific in their objectives. Sociolinguistic research is, thus, work which is intended to achieve better understanding of the nature of human language by studying language in its social context and/or to achieve a better understanding of the nature of the relationship and interaction between language and society.
5. A linguistic variable which shows both social and style stratification, which has attracted conscious attention and become the topic of overt comment.
6. A community of texters who share certain norms to reflect linguistic behaviour.
7. A set of linguistic items with similar social distribution. SMS variety includes examples of what would normally be called languages, dialects and registers (a term meaning roughly style).

Chapter 7
Discursive Practice and the Nigerian Identity in Personal Emails

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ABSTRACT

As communication by the electronic mail spreads and becomes increasingly common, more and more people are taking the advantage of its flexibility and simplicity for communicating social identity and cultural matters. This chapter, focuses on how Nigerian users of the electronic mails, apply the medium for expressing their identity through discursive means. Data comprises 150 personal emails written and sent between 2002 and 2009 in Lagos and Ota regions of Nigeria by individual email writers, comprising youths and adults from a university community and the Nigerian civil service. Applying socio-linguistic approach and computer-mediated discourse analysis, the study shows that the most common discursive means of expressing the Nigerian identity are greeting forms and modes of address; religious discursive practices and assertions of native personal names. The data also show evidences of Nigerian English in the email messages.

INTRODUCTION

As Information technology and computer based communication becomes the vogue across the world, computer-mediated communication (CMC) including email, has almost replaced other forms of individual and workplace modes of communication. Anyone who has access to a computer system and internet network is eligible to employ the advantage of email communication to send documents ranging from a single sentence greetings/information to a whole page report, newsletters, notices, announcements, adverts or academic materials (Taiwo, 2007). Hence email has become a tool of mass global communication (Lan, 2000) with the advantages of simplicity, cheapness and flexibility. In terms of its flexibility, an email writer may attach visual items such as pictures or articles to their messages and may be forwarded or copied to several other receivers across the globe. Kankaanranta, (2005)

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identifies three overall email genres namely the noticeboard, postman, and dialogue. The dialogue genre is used to exchange information that relates to organisational issues/activities; the postman genre is to deliver documents for information/comment and the noticeboard is to inform employees about workplace matters. Both personal and workplace emails perform significant functions and roles. At a personal level, emailing has removed difficulties associated with verbal communication such as shyness, stuttering or fear and enhances the freedom of self expression (Baron, 1998). At the workplace, email communication increases access to new people; weakens spatial and status barriers, and provides access to information that otherwise would have been unavailable (Garton & Wellman, 1995). It also enables managers to control their subordinates at a distance (Brigham & Corbett, 1997) and since in some organisation, employers have access to their employees' email accounts, the email system facilitates monitoring and control of the on-going working process (Skovholt & Svennevig, 2006).

Email as a widespread means of personal and workplace communications reveal interesting aspects of people's cultures and language habits. Workplace emails for instance, contributes significantly to the construction of aspects of social and professional identity/relationship and provide indications of workplace culture and sociolinguistic variables of status, social distance and gender of interlocutors (Abdullah, 2003; Waldvogel, 2005; 2007). Like workplace emails, personal e-mails reveal discursive practices that indicate social identity and reflect socio-cultural practices/belief systems. A study of email greetings and closings reveal that they construct status, social distance, and gender of receivers (Waldvogel, 2005; 2007). And they are also often governed by factors such as sex and religion as well as local communicative strategies (Al-Khatib, 2008). This research aims at defining and identifying discursive practices that are peculiarly Nigerian in email text samples written, received and read by Nigerians. 'Discursive practice' represents how discourse is involved in the construction of social and cultural practice including beliefs, knowledge, religion, norms and values. Hence, the study reveals:

(i) Aspects of discursive practice/identity such as greeting forms and forms of address, and personal names associated with the Nigerian people
(ii) Discursive features of the Nigerian peculiar religiosity and
(iii) Features of Nigerian English

The study centres on "personal emails" which implies that they are not situated workplace emails, i.e. they are written by and sent to friends, colleagues (from different workplaces), relations (spouses, siblings, etc) or acquaintances. The corpus is derived from Nigerian email users (teenagers, adults and the elderly) from a university community and the civil service who have adopted the use of email in their day-to-day communication needs. The study seeks to establish that:

(i) Computer-mediated communication (CMC) whether as Email, SMS, Instant Messaging etc. (Herring 2001), promotes and indeed enhances relational information dissemination, group communication and social interaction
(ii) Email as a form of CMC is a significant medium employed by language users for communicating issues that reflect social identity, and cultural practices and indeed a platform for social practice (Herring, 2001).
(iii) Email texts written in English are language samples that reveal regional varieties

BACKGROUND

The Richness Media theory views email as a "lean medium" incapable of communicating rich information since it excludes non-verbal cues and social presence, and tends to render communication too impersonal and mechanical, (Draft & Lengel, 1984). However, the widespread use of personal and workplace emails, suggests that email communication has been successfully adapted into conveying rich information often attributed to traditional modes of communication with an added advantage of being able to reach different people in divers locations and time zones at the same time (Waldvogel, 2007). According to Abdullah (2003) workplace emails for instance are indeed rich repository of relational communication, that enable writers personalise their message especially among participants who share well-established relationships within a particular workplace culture. The absence of non-verbal cues in email messages is in fact considered as an advantage because in most cases, the email writer has control over the planning and composing of appropriate message which sometimes may be difficult in a face-to-face communication (Walther, 1996).

As noted above, personal and workplace emails contribute significantly to the construction of aspects of social and professional identity/relationship and provide indications of workplace culture and sociolinguistic variables of status, social distance and gender of interlocutors (Abdullah, 2003; Waldvogel, 2005; 2007). Considering greetings and closings as some forms of politeness strategies in workplace emails, (Waldvogel, 2007) argues that greeting forms like other politeness markers express warmth or distance and also used as a means of reinforcing status relationships and expectations. More importantly it shows that people's relational practices at work consolidate relationships and establish the relational basis for future communication. Similarly personal e-mails often governed by factors such as sex and religion as well as local communicative strategies reveal discursive practices that indicate social identity and reflect socio-cultural practices/belief systems (Al-Khatib, 2008). Abdulla (2003) discovers that in the Malaysian society, email writers are particularly sensitive to the relative status of the recipients of their messages and this generally detects the level of imposition they will convey. According to Bunz and Campbell, (2002) email texts containing politeness indicators elicit the most polite responses, while Jessmer and Anderson (2001) note that message recipients view more positively polite messages that are grammatically correct than those that are impolite and ungrammatical.

In another study, Kankaanranta (2005) observes that e-mails with salutations and first names are common with non-native speakers of English, i.e. Swedes and Finns. She notices that email writers that are conversant with the American internal memo with usually no salutations do not generally include salutations. She concludes however that salutations as a discursive practice construct relationships, give messages some friendly tone and contribute to maintaining good social relationships.

Email like other means of CMC is heterogeneous and significantly influenced by a number of social and cultural factors that define the communication taking place (Yates, 1996; Collot & Belmore, 1996; Skovholt & Svennevig, 2006). Email in particular is viewed as an unstable system and linguistic studies of email messages have emphasized the need for analysing CMC in specific socio-cultural contexts. Early studies of contextual issues in email view this medium as a communicative practice that is linked with communicative purposes and hierarchical roles within a community (Yates and Orlikowski, 1992; Orlikowski & Yates, 1994; Nickerson, 1999; Kankaanranta, 2005). Orlikowski & Yates, (1994) show that communicative practices of community members using email are organised through a repertoire of four genres namely the memo, proposals, dialogue and the ballot genre and it turns out that dialogue becomes the most acceptable.

Individuals communicating via new technologies rely on communicative conventions and practices which they had imbibed in other contexts and in emails expectedly, participants in interactions import practices, norms and culture based conventions from conversations and traditional written forms (Orlikowski & Yates, 1994; Hutchby, 2001; Skovholt & Svennevig, 2006). Hence the study of email messages reveals an interesting emergence of new kind of literacy – that of how communicators using email apply a set of social practices associated with particular symbol systems and their related technologies (Barton, 1994). In this vein, the present study examines discursive practices that are peculiarly Nigerian in email text samples written, received and read by Nigerians and how social traditions, conventions and norms characteristic of conversations and the written genre are imported in emails.

THEORETICAL CONSIDERATIONS

Applying a Computer mediated discourse analysis (CMDS) attempts to explicate and describe the place of discursive practices such as greetings, forms of address and religious tradition in online communication. Hence, the discourse analytical methodology applied here is such that views discourse as a social practice (Fairclough, 1989); this approach is an attempt at analysing signifying practices as discursive forms (Howarth, 2000). With the influence of structuralism, post-structuralism, and post Marxism in the social sciences in the 70s the concept of discourse was extended to include some wider sets of social practices and phenomena (Howarth, 2000). Drawing extensively from the works of Michel Foucault (1981, 1991) and Jacques Derrida (1982) discourse became associated with social actions, attitudes, concepts and practices. Everything became discourse, including the world itself. And this is based on the fact that all objects and actions are meaningful, and that their meaning is a product of historically specific systems of rules. It thus enquires into the way in which social practices construct and contest the discourses that construct social reality.

Computer-mediated communication in this context views all forms of communication/messages produced and transmitted through computer networks as discourses, revealing feature of real life identities and dimensions of social practices. Herring (2001:9) observes that some researchers have erroneous believed that CMC was a “cool medium well suited to the transfer of data and information, but poorly suited to social issues,” (Baron, 1998; Kiesler et al., 1984) but the present day avalanche of social life on the internet confirms that the Internet (in this context emails) does indeed provide a rich source of data for the study of discourse and social practice (Herring, 2001). Because email Communication is a genre with a vast linguistic variations yet demonstrating a “moving linguistic target rather than a stable system” (Baron, 1998:144), it therefore holds a lot of promise to research in CMC centring on specific social and cultural context as is the aim of this study.

Although this study is exclusively not a cultural analysis, its focus on the Nigerian identity via cultural discursive practices immediately brings to fore the propositions by Hofstede (1980; 1991) which suggests that despite online intercultural practices, and the fruitful results of intercultural research, there is indeed a national culture and a consciousness of same which identify a group from among other social groups. Hofstede identifies four dimensions of national cultures, namely power distance; collectivism vs. Individualism; femininity vs. Masculinity and uncertainty avoidance. Collectivism is the strong cultural bond that integrates people into cohesive groups which throughout their entire life continue to protect them in exchange for unquestioning loyalty (Hofstede, 1991). Culture consist of habits and tendencies to act in certain ways, comprising language patterns, values, beliefs, customs and thought patterns (Barnett & Sung, 2005); it is a socially shared activity and a property of a group rather than an individual

(Nieberg, 1973). Critics of Hofstede, especially researchers in CMC argue that what is important is how national as well as other cultural identities (ethnicity, youth culture, gender etc.) interact with intercultural communication online (Ess and Sudweeks, 2005). Hofstede model would not be appropriate were individuals use the internet to observe and to initiate a new style from abroad as a kind of resistance against their dominant culture (Ess and Sudweeks, 2005)

Nigeria is a multi-cultural, multi-ethnic and multi-lingual nation; yet certain language habits and discursive practices are evidently perpetuated in the language of the average Nigerian, ethnic differences not withstanding. Indeed, the average African has a uniqueness about him or her that marks off national identity and national pride. Interestingly, even Nigerians living abroad observe these practices in their email messages to their relatives at home.

METHODOLOGY

As already stated in the introduction, analysis of data is mainly qualitative, focusing on the sociolinguistic and CMDA of opening and closing of the emails showing forms of address, greeting forms, personal names that are peculiarly Nigerian, and aspects of Nigeria's obsessive religiosity. Some features of Nigerian English are also identified in the course of the analysis. The CMDA framework describes different levels of analysis of online discourse which include structure, meaning, interaction management and social practice (Herring 2004).

The corpus comprises 150 personals email samples that were written and sent between 2002 and 2009 in Lagos and Ota regions of Nigeria from a university community and the Nigerian civil service; they were collected between mid 2008 and early 2009. Data were collected from men and women of different age groups - teenagers, adults and the elderly. "Adults" represents non-teenagers and "the elderly" are those above 50 years. 70% of the emails however come from the university community, consisting of mails from teenagers and the adults. Only about 5% of the data are obtained from the elderly from both the university community and the civil service. Since the study focuses on personal emails received from and sent to relations, friends, and acquaintances, it is likely that mails would have come from people from the private sector or virtually from all works of life. Emails received from and sent to Nigerians currently living outside Nigeria form part of the corpus since the study also intended to see the extent to which cultural transfers have affect Nigerians living abroad.

During data collection, it was discovered that "personal" emails were not common in most people's inboxes. Most of the emails were business-oriented, comprising mostly attachments and forwarded items relating to career and studies. Such emails were therefore not included in the corpus. For a study that centres on discourse and sociolinguistics of social practice and identity, it is only appropriate to investigate private emails. While workplace emails may betray cultural traits, the researcher considered the possibility of informal messages much more likely to convey elements of social practice and cultural identity. This is however a subject of further research.

It was also observed that a number of people were indeed reluctant to release their emails for purpose of confidentiality while some freely gave up theirs for the study. Others said they preferred phoning or texting to emailing for communicating personal matters and that emailing seldom gave them ample room for private communication. These are actually the main reasons for the leanness of the corpus. But again whether email does not give sufficient opportunity for communicating private issues will be a subject of another study. In the analysis, the actual identities of the writers are not disclosed. The 'names' of the emails writers are mere pseudonyms: the email addresses have also been extensively modified.

ANALYSIS AND FINDINGS

Forms of Opening/Address

Like in many other cultures, e.g. Malaysian, (Abdulla, 2005), where forms of address is sensitive to status of the addressee, the style of openings in email messages by Nigerians is generally determined by the age, social status and roles of the sender and that of the receiver. For example opening of emails by teenagers to teenagers especially those of the same age group defer from those from youth to adults and the elderly. Generally mails between teenagers do not always begin with any form of opening or greeting. While mails from teenagers and youths to the elderly reflect status and social roles of the addressee; mails from adults to teenagers and those from the elderly to either the adults or teenagers begin with either the receivers' first names or no opening at all. Unlike the Jordanian society (Khatib, 2008) where sex and religious considerations are so important in greeting forms, Nigerian email writers pay no particular attention to gender issues. Apart from the usual 'sir' for men and 'madam' for women, men and women enjoy the same level of respect in email texts. Interestingly however, the corpus consists of email communication between men and men than men and women. This means that more of the mails in the data were written and sent by men. This is not to conclude however that more Nigerian males write personal emails than their female counterpart. Another study will perhaps investigate this. In the data, most emails from young people to adults and the elderly begin with:

(i) Sir (2, 92, 96 etc.)
(ii) God bless you sir (4, 17, 18, 19 etc.)
(iii) Hello sir (23, 103, 107 etc)
(iv) Dear Sir (24, 27)
(v) Good afternoon sir (67)
(vi) How're you sir (46)
(vii) Good evening sir (102) etc.

The tone of unfamiliarity and distanced is deliberately sustained as a matter of social tradition. The addressee naturally feels respected to be so addressed. Like in most cultures, the use of the address form 'sir' is to recognise the addressee's age, and social status. In the Nigerian cultural context, it is mandatory for a younger sender of a message, whether through texting, verbal or other means to add 'sir' to the male addressee and 'Ma' or 'Madam' to the female addressee.. Even in the religious context where Christians often begin and close emails messages with prayer, the 'sir' requirement is also often met as some of the mails being with:

(i) God bless you sir
(ii) May God bless you sir
(iii) God bless you richly sir etc.

This kind of opening normally functions as greeting/politeness and indicates the type of message that follows and the kind of feedback that is anticipated. Most of the openings, usually from younger persons would rather indicate, not just the attitude of showing respect but also construct the social/professional status of the receiver as a dimension of politeness strategy; this way the message first of all, introduces the receiver's professional/cultural titles and sometimes extol his well known outstanding qualities.

Greetings perform very important socio-cultural roles in emails especially informal ones. As a matter of fact, the subject matter of many of the emails in the data is merely greetings. The *Yorubas* for examples are often said to be 'social greeters,' having several greeting forms for all seasons, times and social activities. The form of greetings would generally construct the addressee's social status and sometimes suggest his roles within some specific social groups. In emails, greetings naturally set in motion the tone and content of the message. Greetings and closing remarks usually establish the basis for future communication (Waldvogel, 2007) and in most cases reflect cultural discursive traits. The data shows that not only do messages from younger persons construct social/professional status as a form of greeting, but adult to adult and elder to elder messages do the same thing. The most common forms of address/greeting in the data include:

(i) Prof (22)
(ii) Good day prof (9)
(iii) Igwe (equivalent to 'chief' or 'ruler')(10)
(iv) Oga Ctarlpe ('Oga' is equivalent to 'master') (15)
(v) My dear Prof (21, 83)
(vi) Dear Dr. Ojzh (26)
(vii) Dear Dr. Adrtogza (84)
(viii) Dear Professor Slwu (85)

As a matter of social practice, the average Nigerian likes to be recognised and addressed by whatever social achievement he/she has attained. In some cases certain individuals are addressed as 'Rev. Dr...' or 'Chief Dr. Engr...'etc. reflecting the many academic degrees/traditional titles they have acquired. It is often taken seriously if a younger person fails to recognise an elder by adding 'sir,' or a title like 'doc'., 'prof.' or 'chief.' In the emails under study, the openings and greetings show this kind of title-conscious tradition. This is different from what we see in many European cultures where salutations with first names are common; Kankaanranta (2005) cites the case of the Swedes and Finns. In Nigeria, emails between adults and adults or adults and the elderly, overtly reflects this social practice, even while conveying informal tones. Below are a few examples:

(i) Prof my broda ('broda' is a colloquial form of 'brother')(8)
(ii) My brother (14)
(iii) Thanks Charlie (13)
(iv) My prof.(20)

Interestingly, data reveals that openings such as 'hello' or 'hi' are not common in greetings among adults and elders. Even while communicating with younger persons, the most frequently used opening is by simply addressing the addressee by his first name like 'Sola' (a short form of 'Olusola' or 'Adesola') or 'Bunmi' (Olubunmi). In email (105) (Table 1) an adult simply writes the addressee's first name as part of the introduction of the mail and went ahead with the content of the message: he concludes the message without even signing off with his name.

By using the short form of the bearer's name, the email writer conveys the elements of informality, congeniality and fondness. These also functions as politeness and greeting at the same time; for some, the introductory part of the message still includes greeting forms such as 'how're you,' 'happy new month' or 'compliment of the season.' As in the youth emails, adult to adult emails sometimes do not include any form of opening but may contain some forms of greetings. This reflects the degree of acquaintance, the informality of relationship and how frequently they communicate with each other. Emails (72) and (77) (Tables 2 and 3) also illustrate this.

Email (77) begins with a mixture of English and *Yoruba*, a typical intra-sentential code-mixing that underscores a popular cultural message pat-

Table 1.

(105) From: Dmla Wandt <dwdt@gmail.com> To: Abymp Ipdela <prfyyymexy@gmail.com> Sat, Jan 31, 2009 at 10:32 AM Thanks Yomt for the mail. my interest in that you know exactly what God has in mind for you and that you stick to it. The most important thing is being accurate. I pray the Lord will lead you aright. You sound very convincing so I am relieved. If you are fully persuaded then follow your heart, if any doubt exists no matter how small about a decision like this then it is better to attend to it first. I give a more detailed later. regards.

Table 2

(72) From: pece <peptce @yahoo.com>
To: sign <s7giy @yahoo.co.uk>
Date: Tuesday, April, 2006, 12:00 A.M
How expressive. So it is out of sight out of mind right? no problem. How's work and your "Obidiya".
The next time you send me a mail I would appreciate a little more detail (oh ye programmer).
Have a wonderful tym.
Sign

Table 3.

(77) Tuesday, 16 September, 2008 11:22 PM
From:"Yzbm Woonito" <ysko4@yahoo.com>
To:siny2010@yahoo.co.uk
Young man kosi nkankan to n shelee. sho oo wa kpa sha. hope the yoruba isn't too complex 4 u......or lets go english. how are you doing.....or lets go down to broken eng chairman, guy, bros sie, how far, hope say na u dey hammer life, say no b life dey hammer u. oh boy hope u have started writing ur own novel cause his mail is a classic best seller..... i hav neva recved a mail dis long in y life...tanx 4 making d record. hey i don't agree wit u on d fact dat girls are way more confused than women or in fact boys. may not hav the prove now but will jam u in skl wit d prove. i believ the rule that ladies first was put as a form of protection and as a form of elevating any form of stress...TAKE CARE

tern among most Nigerians. 'Obidiya' in mail (72) above, meaning 'her husband's heart' is an Igbo coinage for 'wife.' In the two emails, a formal opening/greeting is absent but the tone of communication is kept sufficiently jovial and friendly. From the above samples, it is clear that another way of expressing cultural issues/identity in text messages is by a deliberate appeal to discursive forms such as local coinages, borrowing from local languages and code-switching. This way, ideas and concepts that are absent in English are easily expressed. As a matter of fact, this is one of the hallmarks of Nigerian English as in the examples below. The writer of mail (72) above, closes with 'have a wonderful tym (time),' and he/she signs off with the short form of his/her first name, while the writer of mail (77) like in many other mails by the youth signs off with simply 'take care.'

Emails by teenagers are the most creative and often quite bizarre, completely different from that of the adults and the elderly. While the messages of the adults deal with family, work, promotion, career, religion and festive seasons, emails by teenagers centre on concerns about school, holiday, friendship, music and fashion. The youth emails generally do not include opening or greetings but sometimes consist of greeting forms in the introduction. Emails like the following (Tables 4-6) are common in the data:

Emails by adults and the elderly often follow the structural pattern of introduction, body and conclusion, where opening/greeting forms part of the introduction. Main issues of the messages are generally discussed in the body of the text. Unlike the adult emails however, none of the emails above begins with any form of opening/greeting but

Table 4.

(79)From: Spy<syi@yahoo.com>
To: Jny<switty7ng@yahoo.com>
Date: Wednesday, March, 2007.
Jenny guess what can u imagine what dad did he went to aba on tues and left with his cheque book s leaving us to suffer and ekeoma is going back to school non sun day well iam just returning from the bank and i just thought u should no about it. Bye

Table 5.

(60) Subject: Na Waooo To: “anty” <odla@yahoo.co.uk>, Date: Thursday, February 12, 2009, 12:13 PM Na wa 4 U sef, U sabi waka ooooooo. I hear say U and Grace comot 4 morning and U came back with Joy. U spent Ur night with Peace and woke up with Blessing discussing about the Favour waiting 4 U at the office, while Happiness and Prosperity are waiting 4 U in the car. Make U carry go cos na so dem go follow U thru out this year. GOD has Blessed U and it cannot be Reversed. Have a lovely day!! Your Dreams will not die, Your Plans will not Fail, Your Destiny will not be Aborted, the Desires of your Heart will be Granted. Say a Big AMEN. Money will know your name and address from now on. If you Desire to claim it send it back 2 ME and ALL UR FRIENDS.

Table 6.

(71) From: gee <gegen1 @yahoo.com> Subject: I’m impressed! To: chma <speppy @yahoo.com> Date: friday, January, 2002, 10:30 P.M hey i was really impressed after the fone call.i would like to advice us both, pls lets stop wat we never started, do you know u really hurt me wen u said u were gonna do to me wat my last gf did that was very awfull of u.anyway theres nothing to fear now that u have your life to leave without me pestering you. its been your pleasure, and i guess u enjoyed it while it lasted. good bye. Your friend Chma

the language forms sufficiently reflect the socio-cultural root of the writers. The message begins immediately and ends suddenly, though some contain some bits of sign-off. Interestingly the tone of the mails is still quite informal and familiar. One generally gets the feeling of intimacy as he reads them. Mail (60) is an example, with evidences of spelling manipulation, Nigerian pidgin, and a lot of religious sentiments. Email (71) includes some bit of ‘Americana.’ Mails (60) and (71) sign off with ‘bye’ and ‘your friend, ‘Chma.’ The above emails like the others in the data are reflective of the dynamism of electronic communication, which according to Crystal comprises a ‘much wider stylistic range than it does at present, as the medium is adapted to suit a broader range of communicative purposes’ (2001:107).

Closing

Findings here coincide with Waldvogel, (2007) which concludes that greetings and closings encode social information such as status, social distance and gender. Social distance refers to the degree of acquaintance whether formal or informal. In the Nigerian context, however closings do not often encode the same information regarding social distance. Adult to adult (and the elderly) emails in the data, close on a formal note although the content of the mails are informal messages. While all the mails in the corpus are those written by friends and relatives to their acquaintances, they still end formally. Many of the closings follow the traditional letter-writing subscription pattern such as:

(i) I remain yours truly
(ii) Regards to your family
(iii) Kind regards
(iv) Thanks
(v) Kindest regards
(vi) Your sister
(vii) I remain your humble landlord
(viii) Sincerely etc.

A few, notably those by the youths end on a friendly informal note such as:

(i) Best
(ii) Cheers
(iii) Love
(iv) Bye etc

Significantly, most of the emails by the adults and the elderly in the corpus open or close with reference to the family. In Nigeria like in many other societies and cultures, there is a lot of respect for the family and most Nigerian greeting forms encode reference to the family's welfare. Examples in the data include:

(i) Top of the day to you, brother. How is your family? (1)
(ii) Regards to your family...(2)
(iii) Special greetings to your family (13)
(iv) I believe all is well with you and your family (15)
(v) What about the wife and the children (22)
(vi) God bless our celebration of his joy. Our families, our heart (43)
(vii) Please extend my love to your family (86)
(viii) How are you and your family? (92)
(ix) I trust you and your family are doing fine (104) etc.

In constructing the family, the emails also construct identity and solidarity and therefore exclude all forms of gender difference. In the African culture, the family, including the extended family is the root of existence. In the traditional religion, the 'family' includes the ancestors and the children yet unborn. So when an elder says: 'how's the family, the 'family' actually transcends the nuclear one. While emails by teenagers and youths pay no attention to this form of greetings, omitting it by an adult/elder is often viewed as an insult on the addressee/receiver and negligence on the part of the speaker/sender. In traditional Africa, a man's dignity and worth actually depends on the size of his family. Even when it is a known fact that a man is unmarried, an elder will deliberately ask after his family (i.e. his wife and children) – a discursive strategy to spur him up to family life. It is possible therefore that some of the emails above are received by those who have no nuclear families of their own, who are being pulled to that direction by the culture and discursive practice.

Religion as a Discursive Practice

Religion is practiced on the internet, and since it is culture-bound and expressed within a cultural context most of its features are reflected in email messages written by Nigerians. Nigeria is said to be the most religious country in the world with about 95% of the population attending religious service and 80% as regular church goers, (Johnstone & Mandryk, 2001, Emenyonu, 2007, Chiluwa 2008). In Nigeria, like in many other countries in Africa, religious practices are discursive, and play significant roles in moulding the thoughts and lifestyle of the people. As the data have revealed in the opening and closing of email messages, religious undertones have been quite clear, ending as prayers or well wishing.

Most of the emails with religious messages follow the opening, body and closing discourse structure, with the peculiar church-based address/greeting forms. Many of the openings follow the usual formal letter opening. Religious subjects are often assumed as having impersonal and universal implications, so the writers of the emails assume a formal stance in writing them. Below are a few examples of the openings/greetings from the data:

(i) May God bless you, Sir. (4)
(ii) Dear Bro. Innocent (5)
(iii) Dear Sis. Ekaete (6)
(iv) May God bless you richly, Sir. (7)
(v) Bro. Olaolu (32)
(vi) Dear Brethren (81)
(vii) My dear Bro. Simon (87)
(viii) My dear Pastor Abraham (93)

Notice the forms of address/titles, i.e. 'Bro' for males and 'Sis' for females. 'Brethren' is used for a group comprising males and females while 'pastor' indicates roles. The 'bro' and 'sis' address forms however are more frequently used among people of the same age-groups with similar religious/church roles. Older men and women are often addressed by their titles, indicating their roles, e.g. 'pastor', 'reverend', 'deacon'/'deaconess,' etc. In religious circles, gender questions though often avoided, are actually taken seriously. Men indeed have their places and roles in the church/mosque, while the females have theirs and keep to them without interfering with those of the males. The above forms of opening and address establish the Christian tradition and prepare the grounds for the message. Some of the messages are purely Christian messages such as warning, prayers, well-wishing, homily and celebration. The following (Tables 7 and 8) are a few examples:

Because of the nature of the messages, the above mails do not contain any form of greeting/opening or closing. Email (38) simply signs off with her name. But most of the mails in this category end with formal closing remarks such as:

(i) Long life and prosperity is yours in JESUS Name. Shalom! (3)
(ii) Peace (4)
(iii) God bless you. (6, 65)
(iv) Remain blessed (7, 89)
(v) peace of the Lord be with you (9)
(vi) stay blessed (59)
(vii) May God bless you richly? Amen!(66)
(viii) Remain blessed IN HIM(81)
(ix) Yours in HIM!(82)
(x) Be blessed till then (88) etc.

Most of the writers of the above closings, still sign off with their names. As we can see, the closings are actually prayers and this has become a culture in the Christian circle to end a message on this note.

Personal Names as Identity and Cultural Heritage

One major element of identity and culture that marks of email by Nigerians is the names of the people that write them. Nigerian names and indeed the whole of Africa are unique in themselves. To an African his name is his cultural identity. Going by the spirit of pan-Africanism which became

Table 7.

(11) Wednesday, July 30, 2008 8:52 PM
From: "Addsu Alabz" <du_adbu@hotmail.com>
To: fole@hotmail.com,
Dearly beloved,
JESUS is COMING AGAIN SOON!!! WE MUST BE READY.
(38) Congratulations to Wuraola and Lola, the Lord will increase your strength and provide all you need to bring up these lovely ones in the way of the Lord. Happy New Year to everyone!
Skan Nee Asna

Table 8.

(43) Flag this message
Tuesday, December 23, 2008 3:15 AM
From: "bret" <rmytop@yahoo.co.uk>
To: pubsi@yahoo.com
God bless our celebration of his joy, our families, our heart. May this time bring glory to his holy name in all that he imparts. may u have the gladness of xmas which is hope, the spirit of xmas which peace and the heart of xmas which is love.

prominent in the 1960's many African scholars dropped their seeming Europeans names in order to assert their socio-cultural heritage. Though this study is not an extensive onomastic research, it is worth mentioning here that over 80% of emails in the data carry Nigerian names, which like in other African contexts generally mirror royalty (or chieftaincy), occupation, ancestry and religion including reincarnation. Male names in the data such as Ogbulogo, Ohiagu, Okoroji, Ikedieze, Chukwukadibia, Okechukwu, Chinedum etc. (Igbo), Keshinro, Ajisafe, Rotimi, Adekeye, Gbadebo, Olusola, Amodu, Oyero, Segun, Adelaja, Salawu, Daramola, Fadeyi, etc. (Yoruba); Ipieh, Egbe, Asakitikpi, Ekaete, Odili, Ashi, Ogah etc (other ethnic groups); generally reflect warfare, chieftaincy, occupation, ancestry and traditional religion, female names commonly re-echo virtue/ moral qualities, religion (Christian), reincarnation and socio-cultural experiences (Ajileye, 2000; Ogunbodede, 2006). Generally however both male and female names capture Africa's high regard for values, communalism and expression of socio-cultural experiences. In the data, email writers, especially adults and the elderly sign off with their names often in a formal letter style as in the following examples:

(i) I remain, Truly yours,
Ajppfe Tiyz (1)

(ii) Shalom,

Fmi Kinro (3)

(iii) Special greetings to your family.

Rtim Trrwo (13)

(iv) Sincerely from,

Bro. Beb Chukti (18)

(v) Warmest regards,

Gdrbo DULRU (53)

(vi) Have a great day.

Yom (57)

(vii) Stay blessed.

Ollup Amdv (59)

Nigerian English in the Emails

While CMC is dynamic and progressive, email messages interestingly reveal samples of varieties of English especially emails written and sent by Nigerians. One of the features of Nigerian English evident in the corpus written by the adults and the elderly is the bookish nature of expressions that often lacks the flow that corresponds with the various social contexts (Egbe, 1984). While emails by the youth are flexible and include the style of English comparable to the native speaker, those by adults and the elderly are rather formal and bookish. The tone and style of opening and closing as we have observed in the above examples are rather too formal. While most youth emails begin with, 'hello,' 'hi,' or 'hey' those of the adults begin with 'dear sir', 'dear brother', 'dearly beloved,' dear Dr. Atbac etc. The same style follows in the contents and closings. The flexibility in the Nigerian youth English is the direct influence of contacts with the first language communities as some of them are born abroad and had their preschool and primary education there. Another factor is the influences of the mass media and that of highly educated parents. The Standard Nigerian English which is close to the native speaker is also evident in the emails.

Adult emails are sometimes written like narratives following the introduction, body and conclusion pattern. While some contain heartfelt private messages which give the mails their length, the mails begin and end the way the average Nigerian English tutor would insist on at the foundation classes. Interestingly some Nigerians leaving abroad write in this style. Below are a few examples (Tables 9-11).

In describing features of Nigerian English, it is quite clear that two distinct usages of the same variety exist, i.e. standard and non-standard which vary on the basis of education, status and social exposure of the user (Okoro, 2004). The non-standard variety is characterised by grammatical inconsistencies, transliteration, and a mixture of English and the Nigerian pidgin. There are also breaches of the code, redundancies, omission articles/determiners and reduplications (Okoro, 2004). Email (91) above is an example, with clear evidence of transliteration ('help me say hallo to them') and a violation of selectional rules ('here'

Table 9.

From: ZJMT BUKN <talk2n@yahoo.com>
Subject: Apoti Eri ni eni to gbe laptop yin gbe
To: abjac@yahoo.com
Date: Tuesday, September 9, 2008, 3:36 PM
Good evening sir,

How is mummy and the children? I believe that they are fine. Thanks so much sir for the text msg and the e mail. Oga, e ma worry about the laptop blc the person has carried apoti-eri that will make him restless until he returns it. God will scare the person whether his asleep or awake. Lets thank God for its recovery. I am very sorry that I couldn't communicate with you for quite some times. All is well. We have not reach conclusion with regards to my master yet blc my sister plan was towards late next year for the master's programme after my youth service. For now, her plan was that I should apply for job when we get back to Nigeria depending the time she will be able to raise money for the programme. My strong believe in God is that He will make all things to work out together for my good. I really appreciate your effort regarding the exemption letter and your concern about my plan. God will perfect everything that concerns you and your family in Jesus name (Amen). Mi o gbagbe iwe yin sir, we have not bought it but by God's grace I will get it as soon as my sister is able to go to the bkshop with me. Have a wonderful night rest sir. (102)

Yom

Table 10.

(106)
Thursday, January 8, 2009 12:59 PM
From: "pastor@go.org" <pastor@gsy.org>
View contact details
To: olutomiade@yahoo.com
Dear Adba,

Blessings in the name of Jesus'! Thank you for writing. I appreciate your encouraging and uplifting words! Thank you also for your prayers and support for the situation in Ukraine. This is what we believe in and stand on: "Maintain justice and do what is right, for my salvation is close at hand and my righteousness will soon be revealed." Isa. 56: 1. Let this year bring you joy, and the fulfilment of God's perfect plan – for the sake of His name!

Yours in HIM!
Pastor Suy dela (82)

Table 11.

Tuesday, April 20, 2004 3:44 PM
From: "Fi Esr" <oson2001@yahoo.com>
Add sender to Contacts
To: "Adba Admt" <olde@yahoo.com>
Hallo Byi,

How his Mama and ur wife? help me say hallo to them. did you see all my messages try to reply all.. how his people from ILARE ? did u here from them..Things is not OK For me that is why I cannot come down to IBADAN..When I have some changes I will give u a call and i will try to come to IBADAN before i will come i will give u a call i,m sill on the same no..009229-954834.COTONOU...bye till i read from u....BYE

Best Regds.
YAPA (91)

for 'hear'). It is arguable however, that even in 'standard Nigerian English,' features that may be ascribed as the usual CMC language, e.g. sensational spelling, omission of articles, lack capitalisation etc. is evident.

Features of Nigerian English (standard and non-standard) include regular use of loan words, coinages, local idioms/code switching, category/semantic shifts and pragmatic use of some normal English expressions. Native speaker idioms are also often modified in order to communicate certain culture-bound meanings. In the data however, features such as local usages e.g. *Oga*, *Igwe*, etc; 'Ndewo' (Igbo form of greeting) (15); a mixture of English with the Nigerian pidgin e.g. Wetin dey nah Sola (58); Na wa ooo (60), etc. and code-mixing abound. Email (102) above contains a number of code-switching. The subject of the mail itself is in Yoruba – 'Apoti Eri ni eni to gbe laptop yin gbe,' (Whoever stole your laptop has stolen the ark of covenant). A lot of this kind of discourse strategies enable the writer convey the aesthetic of the native language and express meaning satisfactorily and with a sense of originality. Nigerian English carries the Nigerian thought pattern, not only to communicate information but to actually perform social actions. Certain expressions immediately lose their colour and density if translated into the foreign language. To avoid this, the writer expresses it the local way though in English, or says it as it is in the local language, hence transliteration or code-mixing – the two most frequently used discourse strategies in the emails.

CONCLUSION

This article has attempted to describe the forms and functions of personal emails by Nigerian email users, demonstrating the compatibility of CMC with the study of discourse and social practice. In every culture, language (a part of culture itself) always communicates that culture as well as social practice. With the growing and dominating interest in communication via the internet; it is obvious that there are a lot of different cultures competing for attention. Culture and social practice are recognisable and people always carry their national/cultural identities wherever they find themselves. The Nigerian identity, revealed by socio-cultural practices on the internet only shows that language is sensitive to every context it finds itself.

In the personal email messages studied, Nigerians encode forms of address in the openings (and sometimes in the closings), reflecting the age, social status and roles of the sender and that of the receiver. This is similar to the Malaysian cultural practice according to Abdulla (2005), noting that forms of address are sensitive to the status of the addressee. While mails from teenagers and youths to the elderly reflect status and social roles of the addressee, mails from adults to teenagers and those from the elderly to either the adults or teenagers begin with either the receivers' first name or no opening at all. Unlike in Jordanian society (Khatib, 2008) where sex and religious considerations are so important in greeting forms, Nigerian email writers pay no particular attention to gender issues. However, the Nigerian society is highly sensitive to titles and social ranks. As a matter of social practice, the average Nigerian, male or female prefers to be recognised and addressed by whatever social heights he/she has attained either as 'professor', 'doctor,' 'reverend,' 'chief' etc. This is reflected in the openings and closing of the mails in the corpus. Again this is different from what we see in many European cultures, especially among the Swedes and Finns where salutations are common with only the first names of addressees, (Kankaanranta 2005). In the closing of email messages, findings coincide with Waldvogel, (2007) which concludes that greetings and closings encode social information such as status, social distance and gender. In the Nigerian context, however closings do not often encode the same information regarding social distance. Adult to adult (and the elderly) emails in the data, close on a formal note although the content of the mails are informal messages. Whether in the opening or closing, personal emails written by Nigerians make particular references to the family, where 'family' (in the traditional sense) represents the nuclear and the extended family, the ancestors and the children yet unborn.

In Nigeria like in many other countries in Africa, religious practices are discursive, and reflected in email messages. The study reveals that in the opening and closing of email messages, religious undertones have been quite clear, ending as prayers, well- wishing and messages that re-enforce religious practices. Similarly, indigenous personal names are major cultural marks of identity in the emails. Names that mirror royalty, occupation, ancestry, religion and virtue are typically Nigerian, indeed the whole of Africa.

This study has also shown that email samples are capable of revealing English regional varieties. The emails in the corpus reveal evidences of Standard and non-standard Nigerian English, for instance its bookishness, especially in emails written by adults and the elderly where informal messages retain features of formal letters. This variety is also characterized by regular use of loan words, coinages, local idioms/code switching, category/semantic shifts and pragmatic use of some normal English expressions.

On the whole, it is believed that the internet especially emailing, has become an indispensable medium in particular, where Nigerians communicate messages that are not all 'bullshits' (Frankfurt, 2005) but a venue to enjoy, and transmit their culture, identity, religion and language resources.

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KEY TERMS AND DEFINITIONS

Computer-Mediated Communication (CMC): Any form of computer-based communication, text-based and transferable to one or more persons at different locations, such as email, discussion groups, real-time chats, SMS, instant messaging etc.

Computer-Mediated Discourse Analysis (CMDA): Different levels of analysis of online discourse which include structure, meaning, interaction management and social practice.

Culture: A people's way of life, consisting of habits and tendencies to act in certain ways. This comprises their language patterns, values, beliefs, customs and world view.

Discursive Practice: Expression of social practice through discourse, i.e. how discourse is involved in the construction of social practice including beliefs, knowledge, religion, norms and values.

Electronic Mail (Email): A method of exchanging digital messages, from person to person or group of persons. It provides an opportunity for online communication between people from different locations and time zones at the same time. Messages are typed on a computer screen and sent through digital technology to recipient addresses.

Identity: A characteristic/feature that defines a person's or group uniqueness, distinctiveness or personality, often expressed through their name, racial differences or cultural traits.

Personal Email: An email message from an individual to another on a subject that is informal and private. This kind of mail is common between friends, relations, and acquaintances.

Politeness: A show of respect and recognition to someone expressed through language and other cultural norms of behaviour. This is often determined by the person's age, social roles, status and sometimes sex. In personal emails, politeness is expressed in the openings and closings of the messages.

Chapter 8
Constructing a Diaspora Anglophone Cameroonian Identity Online

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ABSTRACT

The chapter illustrates how Cameroonians living in the diaspora discursively construct their identity as anglophones, i.e., as coming from the anglophone part of the country (the North West and South West Regions) in online interactions. In order to do so, they draw from several sources: the colonial history and heritage of the country, the geographical origins of the anglophones, and the linguistic factor: the use of English. Emphasising certain traits that make them different and superior, the anglophones create an in-group almost on par with ethnicity. This in-group is recreated discursively in the data used here. The data were collected from the interactive feature of The Post Newspaper, online version. The chapter concludes that virtual identity construction follows similar strategies as real identities in non-virtual communities albeit differences imposed by the medium.

INTRODUCTION

Diaspora communication and identities are not at all new in current sociolinguistic research. Several significant findings have been made on how people in the diaspora from the same community or country tend to build in-groups through regular meetings, the use of language (dialects or sociolects), and other strategies (Anderson, 1983; Mühleisen, 2002). These are indeed real communities in which members attach faces to the names they call and the people they touch or see during meetings. But with the arrival of the internet, similar patterns of diaspora community building have emerged (see Donath, 1999; Hinrichs, 2006; Mair, 2003; Ponzanesi, 2001). In the virtual world, people have formed virtual communities representing the real diaspora communities and have engaged in identity construction activities and communication in pretty much the same ways – though with different specificities dictated by the medium – as in real communities. These online communities are,

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however, different from the real communities in many aspects: identities keep changing together with the virtual nicknames adopted by members of the community; members feel safer and more distant in the different nicknames they adopt and hence often become more 'daring' in the extent of their criticism or propositions on certain topics; they find it easier to change positions as long as they can change their identities; and they may be in different locations but are still strongly linked by the internet. Although most of these things also happen in normal, real communities, the patterns are less direct and the threats to cordial co-existence tend to be reduced. An important thing to note here is that, while diaspora communities generally celebrate the home abroad, they also generally transfer the tensions and problems – social, inter-ethnic, inter-tribal, inter-lingual – that are found at home to the diaspora community. These may not be in the same degree as at home, but they are nevertheless present.

This chapter looks into a virtual diaspora community of Cameroonians. Focus is on how anglophone Cameroonians construct their identity as an in-group marked especially by geographical origin: coming from the English-speaking part of the country (former British colony), and the common use of English. This discursive construction takes form especially when there is need to counter the francophones – from the French-speaking part of the country. It involves invoking several aspects supposedly linked to the anglophone heritage, among them, a claim to the anglo-saxon culture (being a British ex-colony), the pride in freedom of expression, reference to pre-independence power balance and political status quo, and so forth. By doing this, they accord themselves good qualities and to the other group bad attributes. Doing this discursively confirms what Seidel (1985) says: "Discourse is a site of struggle. It is a terrain, a dynamic linguistic and, above all, semantic space in which social meanings are produced or challenged" (p. 44).

The website from which the data were collected and in which this virtual community is built is the interactive feature of *The Post Newspaper Cameroon* (www.postnewsline.com). In these features, Cameroonians abroad react to news stories on issues happening back in the country. Since the reactions are in English, most of the interveners are, therefore, anglophones. They generally criticise the government which they believe is too francophone-inclined, hence distancing themselves from it. They often also defend anyone, especially anglophones or anglophone-friendly people, who are treated poorly in the country or have a misfortune. I am, therefore, concerned with how this Cameroonian anglophone identity is constructed, defended, and promoted in the face of supposed 'marginalisation' by the francophones. The data used here is part of a larger corpus of Cameroonian online discourse from 2004 to 2008 I am building. The news stories from which the excerpts are taken were published between 2006 and 2009, and were related to politics, anglophone marginalisation and the general administration of the country.

Before going further into this, it is relevant for a better understanding of the raison d'être of such an in-group to explain the relationship between the anglophones and francophones in Cameroon. This is because this relationship, like in many diaspora situations, has been transferred abroad and is used to sanction interaction between the two groups.

The Divide: Anglophones and Francophones in Cameroon

According to Anchimbe (2006) the main factor that keeps the anglophones together as an identity group is their common use of the English language, inherited from British colonialism of the 19th and 20th centuries. Although this is not the ultimate factor or point of unity, language plays an unavoidable role in, 1) identifying the members of the group, 2) spreading the group's values and ideals, 3) shutting out non-members of the group, and 4) giving the group a medium to identify itself and its members. These, notwithstanding, and as I have said elsewhere, "If English were to be taken away from the anglophones, they would be as divergent as Cameroon itself" (Anchimbe, 2006, p. 259). To understand how this attachment to official language started, let us have a brief look at the colonial history of the country.

Cameroon was first annexed by Germany in 1884 and treated as a *Schutzgebiet* (Protectorate) of the Kaiser. After the defeat of the Germans in WWI, the territory was split up between France and Britain. France ruled about four-fifths of it together with its central African territories while Britain took the remaining portions which it administered from Nigeria, where it already had colonial holdings. The territory remained thus divided until independence of the French part in 1960 and of the British in 1961 when both reunited into the Federal Republic of Cameroon. Both ex-colonies, therefore, maintained their ex-colonial languages together with the judicial and educational systems. For more on this historical background, see Mbassi-Manga (1973); Koenig et al. (1983); Fanso (1989); Konings & Nyamnjoh (2003); Mbuh (2005); and Anchimbe (2006). Konings & Nyamnjoh (2003) summarise this history and resulting identities thus:

Colonial boundaries have had an ambivalent impact on what has come to be known as the Anglophone problem. On the one hand, the boundary between Anglophone and Francophone Cameroon has laid the foundation for the construction of Anglophone and Francophone identities and the development of cleavages between the two elites. On the other hand, this boundary has failed to erase the existing ethnic relations between both territories together, enabling the Anglophone and Francophone elites to cement alliances if they were felt to be opportune. (p. 9)

The country is today still predominantly treated on the basis of this historical, linguistic and geographical divide. Due to colonialism alone, the two parts are referred to, as the quote above shows, as 'anglophones' for the former British colony and 'francophones' for the former French colony. Politically, the two anglophone regions are often treated as one region. This has made the reference to 'anglophones' almost similar to references to ethnic groups or clusters of ethnic groups that can be described together. In a way, this has also forced the anglophones to think of themselves as an ethnic group, since ties between them (anglophones) are very strong especially when it has to do with facing up to the francophones (see Anchimbe, 2006; Wolf, 2001). As Table 1 shows, the francophones make up over 80% of the population and occupy eight of the ten regions of the country.

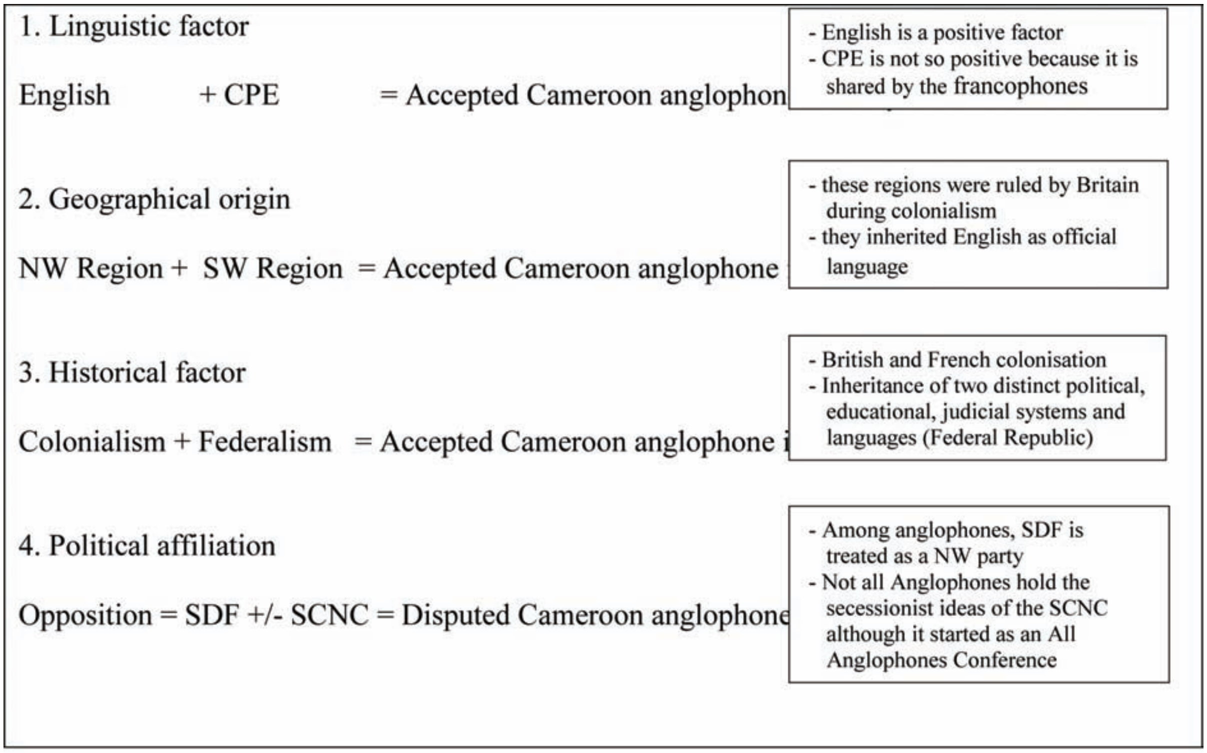
Being less than 20% of the population, the anglophones consider themselves the minority group and have hence resorted to accentuating those aspects that make them belong together. These aspects include the use of English as a common in-group language, their colonial history, and their geographical origin (North West and South West Regions).

Table 1. Anglophone and francophone population estimates in 2008

Groups	Population estimates	Percentage
Anglophones	3,712,583	19.5
Francophones	15,306,055	80.5
Total	19,018,638	100

Source: culled from *World Gazetteer* (2008: www.world-gazetteer.com)

Figure 1. Aspects of the Cameroonian anglophone identity



Looking at Figure 1, we see that three aspects of this anglophone identity are generally accepted. This means that the basic definition of who an anglophone is normally includes the use of English as official language, origins in the two regions, and historical links to Britain through colonialism. To the use of English, we could add the use of Cameroon Pidgin English, which though a lingua franca of many regions in the country, is generally identified with the anglophones. These aspects are non-negotiable since they are beyond the control of the people and could be said to have been imposed on them by nature (Blackledge, 2005). A negotiable aspect of this identity is the political affiliation of the anglophones. Because they can choose what political party to belong to or what political ideology to support, this has made a complete anglophone identity fluid. As illustrated below, anglophones still struggle with this issue in their quest for a unified identity group that could in all aspects stand up to challenges from the dominant francophone group.

These identity aspects are also realised discursively in ways that either open boundaries to members or close them to (supposed) non-members. From these discourses, we could explain why and where group members position themselves and the ideologies they hold vis-à-vis topical issues. For more on identity negotiation and positioning through discourse see Pavlenko & Blackledge (2004) and Blackledge & Pavlenko (2001).

Taking the above incongruencies in the construction of a smooth Cameroon anglophone identity into account, the following idealized situations (Figure 1) can be plotted out based on the four aspects of anglophone identity referred to earlier: linguistic factor, geographical origin, historical factor, and political affiliation.

The fourth scenario is still very thorny among the anglophones. The examples used in the analysis make reference to the Social Democratic Front (SDF) and the Southern Cameroons National Council (SCNC). The SDF is a political party launched in Bamenda (North West Region) in the early 1990s. Its charismatic leader has used English and especially Pidgin English to build a strong base with grassroot people. The party has generally been regarded as an anglophone party, especially by the francophones and the political administration of the country, but as a North West party by anglophones from the South West Region. From a critical reading of the examples, one could trace this NW-SW divide in relation to the SDF. The SCNC was formed in 1994 after the second All Anglophones Conference that held in Bamenda (see Konings & Nyamnjoh, 2003). With the goal of seceding the anglophone regions from the rest of the country and forming an independent country based on colonial lines, the SCNC has become a divisive factor among anglophones. This explains why these two issues make the political aspect of the identity disputed. Important of note here is the fact that online diaspora identities also bear signs of these aspects. I will explain them in this chapter by looking at how the anglophones construe themselves as a solid block strong enough to repel others.

Diaspora Virtual Identity: Heterogeneity and Authenticity

Generally speaking, the construction of identities in virtual space takes on the same parameters as in real life spaces. This means that online identities operate more or less like real life identities: they are non-static and heterogeneous. But the conditions under which they evolve and the medium of their consolidation differ from real life identities. This notwithstanding, the fundamental basis referred to by Tabouret-Keller (1998) in the following quote have, however, remained similar:

At any given time in a person's identity is a heterogeneous set made up of all the names or identities, given and taken up by her. But in a lifelong process, identity is endlessly created a new, according to very various social constraints (historical, institutional, economic, etc.), social interactions, and wishes that may happen to be very subjective and unique. (p. 316)

The subjective and unique wishes referred to above could also be found to exist for members of virtual communities. These function on four basic assumptions:

1. There is the lack of direct face-to-face contact: Because of this, members have some degree of safety, security, freedom in the way they interact with each other. Although they know each other in the virtual space through the names they use and the patterns of expression, there is hardly any way to stick these nicknames to faces, not even when members post pictures of themselves.
2. The use of unreal names: Speakers tend to write more freely since most of them use unreal names. This, added to the lack of physical contact, makes members feel safer in discussing thorny issues like advocating political uprising, instigating public strife, and insulting public figures.
3. Most speakers are in the diaspora: Living far away from home, the diasporians tend to compare life and happenings abroad with those at home. Interestingly, most of them make these comparisons based on realities at the time they left the country. In the examples provided here, some members constantly refer to the Southern Cameroons (SCNC) secession bid as though it were the most topical issue in Cameroon at the moment. It indeed isn't and the matter seems to be more alive abroad than at home.
4. The use of the written medium: It gives members time to construct what element of themselves they want others to know. It makes multiple or heterogeneous identities

perfectly possible, especially given that members could adopt new nicknames each time they want to switch to other identities or show different traits.

In spite of the above specificities, people still succeed to form identity groups in virtual space. Even though identity cues seem few online for the reasons above, they, as Donath (1999) explains, still exist.

Identity cues are sparse in the virtual world, but not non-existent. People become attuned to the nuances of email addresses and signature styles. New phrases evolve that mark their users as members of a chosen subculture. Virtual reputations are established and impugned. By looking closely at these cues, at how they work and when they fail, we can learn a great deal about how to build vibrant online environments. (p. 30)

Online communities could be identified using three main characteristics: 1) retrievability of the past, i.e., is there a history of past events, postings, topics, etc.? Members refer to topics discussed earlier, to what they themselves said earlier, to incidents that took place on the site. 2) identification of members by their characteristic behaviour or writing style. Is member A always reactionary, revolutionary? Is member B known for asking 'stupid' questions? 3) identification of non-members when they pop into the group. How is this done? Is it by the names they use, or by the ideas they propagate, or by the language they use in the community? All three are possible. In excerpt 1 below, Janvier Chando Tchouteu is knocked out of the community on basis of his rhetoric and his name. His first name sounds francophone (French, Janvier – January) and his last name seems clearly to be from a tribe (Bamilike) in the francophone area.

Excerpt 1

> Rexon: Janvier Chando Tchouteu, Go and preach your rhetoric above to citizens of your country at camerouninfo.net and icicemac…Bamilikies were recently asked to leave Yaounde by their Beti masters and that is the problem you should be concerned about.

Authenticity is achieved if the above characteristics are fulfilled somehow. It is possible that people, who normally would not be accepted in the group, infiltrate it. While they may read what other members write, they often get spotted in the long run if their ideas begin to drift away from those of the rest of the group. This also happens in real life communities and I have termed this 'identity opportunism' (Anchimbe, 2006). It refers to situations where people adopt the language or behavioural patterns of another group in order to benefit from the advantages offered to members of the group. Such people always fall back to their original identity group as soon as the goal of the switch is achieved, hence opportunism.

ON BEING AN ANGLOPHONE: STANDING APART AND SETTING THE STANDARDS

In the construction of identities, people generally attribute good qualities to the group. In situations where the group has opponents, the opposing group is attributed bad qualities and represented as the hawkish, intolerant and oppressive power. Anglophones in the diaspora, just like those at home, attribute certain positive features to themselves and the group to set it apart from the francophones. In the words of a member of the online community, Ebot Tabi, we see this clearly: "French Cameroon is a disgrace to democracy. Southern Cameroons is not part of this disgrace". This section describes how this is done online. I focus only on how anglophones regard themselves and not how they construct the francophones.

Anglophones are the Keys to Success

In most of the postings on the forum, the members present the ideal anglophone as the key to success in all that they do. For them, because the anglophones inherited the anglo-saxon way of life from British colonisers, they are organised, disciplined and meticulous in their way of doing things. In excerpt 2, we get the impression that the failure of the national football team to win in Ghana against Togo was caused by the absence of anglophone players in the team. The successes of the team in 1974, 1988, 2000 and 2002, Fritzane Kiki claims, were thanks to "Anglophone players who spiced and added team spirit in the squad". Success here is not limited to the football team alone. Excerpt 2 further claims that Cameroon will continue to be unsuccessful unless anglophones and their identity marker, English, are "considered in the day-to-day running of that great nation". Everything anglophone is potentially a key to success.

Excerpt 2

> Fritzane Kiki: We hear recently that the Lions failed in their Ghana expedition because there were no Anglophones in the squad. The paper further states that for all the 4 Nations Cup the Cameroon Lions have won, was with the help of Anglophone players who spiced and added team spirit in the squad. (1974, 1988, 2000 and 2002)…History will never repeat itself unless Anglophones and the English Language are being considered in the day-to-day running of that great nation of Cameroon.

Excerpt 3

> Fritzane Kiki: I respect your point on the neglect of stars and legends. When I wake in the morning and see Ndip Akem and Tataw on my holidays in Cameroon, I feel ashamed and disappointed and think most of these players have become preys of la république's demagogy. You know what they are only invited at the end of year bonanzas at Etoudi to dine and wine with corrupt officials. But if we take into consideration Anglophone players who are professional players in the international scenes, then Southern Cameroons can boast of a national team if time comes."

In excerpt 3, the success of anglophone players abroad is good sign of the success of a Southern Cameroons nation, of course, "if [when] time comes". An interesting attribute that comes up in this excerpt (discussed below) is the moral rectitude of anglophones. Kiki regrets that these illustrious, morally upright anglophone former football players are invited to the presidential palace to "dine and wine with corrupt officials", who are normally francophones.

Anglophones Stand for Moral Uprightness

Another attribute that contributors on the forums give to the anglophone in-group to which they belong is moral uprightness and the zeal to do what is right. To them, Cameroon would not be corrupt or rig elections if anglophones were placed in positions of decision making. Mathew Ashola in excerpt 4 is unhappy about the fact that anglophone intellectuals placed at the top of ELECAM (Elections Cameroon) are not independent of the francophone-led CPDM party. This gives the impression that "free and fair elections" would have been very possible if this organisation, especially the anglophones appointed into it, were independent.

Excerpt 4

> Mathew Ashola: God, Cameroonians have waited for so long. Anglophone intellectuals especially those recently appointed to run the so-called ELECAM are not independent of the ruling CPDM, they cannot under any circumstance organise free and fair elections. If they were to, then the so-called francophone minister of external relations would not have been threatening diplomats. Diplomats have received and succumbed to successive threats from Biya and his francophone brethrens for 27 years. Now is the time for change. If the diplomats cannot stand against the so-called ELECAM, we will start by sending them back to their countries before turning to Biya and his colleagues.

What is also interesting in excerpt 4 is the use of the plural pronoun 'we'. This 'we' is not inclusive but exclusive. It includes only the anglophones and excludes the francophones, since as the writer says, they are Biya's "francophone brethrens". Here Ashola clearly sets up two camps: 'we' versus "Biya and his colleagues", and the 'we' camp is ready take on the fight that ought to have been fought by the neutral middleman, the diplomats. But in excerpt 7, the 'we' includes the francophones and refers rather to Cameroon and not only the anglophones.

Anglophones Always Fight for Their Rights

In political circles in Cameroon, the anglophones are noted for their quick tendency to revolt or reclaim their rights. In most cases, the fight for rights is not on grounds that they are anglophones but as human beings. In excerpts 5, 6 and 7 below, there is a general call for change through a revolt or protest. Anglophones are referred to in excerpt 4 as "Liberation minds" who have the power and perhaps duty of "advising them [the francophones]" (excerpt 5). And since the francophone administration represented by Biya is not ready to take to this advice, then 'we', the anglophone in-group have "to yank it off the ground for the worm that it is, and throw it into a salt pit" (excerpt 7). The defence of the University of Buea (UB), being in the anglophone part, comes through here as a duty for the anglophones. As excerpt 5 implies, anglophones must not allow a morally decadent francophone like "Ngo who preys on the nether regions of young girls and award them marks", to "make a gammon of UB". For this reason Ndiks joins in with the striking students to say, "Ngoh must go" (excerpt 5).

Excerpt 5

> Ndiks: The NONCE in UB called Ngoh who preys on the nether regions of young girls and award them marks is on record, telling Liberation minds to drop the dream of restoring the statehood of Ambazonia (Southern Cameroons). He's a small time sleeven and a grim colonial PIMP lurking in that Institution. More cannot be said here. Remember I said he is sub-rosaly on a mission to make a gammon of UB, discredit it, and sully it's image. Any qualms why some students are now saying "Ngoh must go"? We have to be beady towards these pimps and the junta in Yaounde. To be continued...

Excerpt 6

> Rexon: We have talked, talked and talked. Why [while] we are busy advising them and crying for our nation, they are busy designing tactics to stay in power. They steal our resources and even go to the extent of bribing even foreign journalist and individuals to write good things about them. Some like Agbormbai and Mukete were employed here to write good things about

> this criminal government. So we need to stand against all this evil.

Like in excerpt 4, the call for respect of civil rights in all three excerpts comes from anglophones even though the situations are completely different. In excerpts 5 and 6, they are reacting to the dismissal in 2006 of the vice chancellor of the University of Buea after crises resulting from the publication of results into the school of medicine. In excerpt 7, the contributor reacts to the president's traditional end of year speech in December 2008. In spite of the time lap between the two excerpts, the anglophone reaction to the circumstances still remains the same.

Excerpt 7

> Samira Edi: Mr Biya has thrown down the gauntlet to Cameroonians (who he sees as enemies). Are we going to stare at it helplessly, as if it was a snake slithering towards us to bite us? Or are we going to yank it off the ground for the worm that it is, and throw it into a salt pit? And this is the age of fast communication. Make use of it. This country must change!!!!!

Contrary to excerpts 4, 5 and 6 where the plural pronoun 'we' refers only to the anglophones, in excerpt 7 it includes the francophones as well. The writer does not make reference to Southern Cameroons as most of the others do but rather talks of "Cameroonians" and "this country". We, however, get the hint from later postings that those to lead the change s/he calls for are the anglophones. This shows how the anglophone in-group endows itself with befitting qualities that are needed to give the country a new face.

Anglophones are Loved by Nature: Nature Placed Them in Their Geographical Region

In Anchimbe (2006), I talk of Cameroonians using natural boundaries to signal the fact that they belong together by the design of nature. Rivers, mountains, forests, vegetation type, etc. have been used to create convenience groupings for opportunistic reasons. References like the grand north, the grassland cultures, the other side of the River Moungo, etc. are recurrent in political discourses in Cameroon as they seek to re-group peoples for different reasons, e.g. to canvass for votes. In excerpt 8 below, Massamoyo mocks the francophone organisers of the 2009 Buea mountain race for usurping the organisation of the race from the local organisers. The excerpt chides the Yaounde-based organisers for not pulling the mountain to Mvomeka, the home town of the president. Here Massamoyo shows how the anglophones are where they are, geographically speaking, by the will of God. They have the natural resources: oil, the mountain, the Cameroon Development Corporation (CDC), even though the political power and control over these are in the hands of others.

Excerpt 8

> Massamoyo: hahahaha I heard they tried to transport the mountain itself to Yaounde to no avail. Then they tried to raise a level land in Mvomeka to a mountain to no avail. Then they just have to organise everything for the race in Yaounde. Hear them vexing. Why did God give these anglos a mountain, Oil, CDC, etc? hihihihhahaha

Contrary to the use of the 'we'-inclusive for anglophones only, excerpt 8 makes use of the exclusive 'them' and 'they' to refer to the other group. This indicates difference and casts the others in a group that is different, inferior, or opposed to the writer's. This supports the claim to geographical icons that attach a natural attribute to the groups: the anglophones are blessed by nature or God but the francophones are not and now "steal our resources" (excerpt 6).

Anglophone We-Group: We Are Leaders

Another characteristic trait the anglophones attribute to themselves in the online discourse studied here is that of leadership. They think of themselves as good leaders. The leadership skill builds on the anglo-saxon culture of which they claim to be part (see excerpt 10). In most of the excerpts quoted here, the sense of good leadership is invoked. Excerpt 4, for instance, regrets the lack of independence of ELECAM which curtails the ability of the anglophones appointed into it to show their natural skills in organising "free and fair elections". Excerpt 9 goes in a similar direction, tipping Philemon Yang as "our next President". CountryFowl in the second part of the excerpt confirms the choice but adds, positively, that Yang is still pure, given that he is not "yet harden[ed] within the system". And the 'system' here definitely refers to the francophone-led government.

Excerpt 9

> Danny Boy: Philemon Yang will be our next President! Taken to task last time for daring to, now I am more than certain. Any gamblers out there can place their bets. This is a cert.
>
> CountryFowl: The fellow seems to be fairly young and not yet harden within the system. It will be in his interest to jump the boat.

Excerpt 10

> Wordweaver: What is Cameroon turning into? Since when did anglo-saxon education turn into a stock exchange market for economic power and a device for political centralization of power? What is happening to Cameroon?

In excerpt 10, Wordweaver expresses shock at the way anglo-saxon education, the pride of the anglophones, is being soiled due to the imposition of political power on educational merit. S/he is reacting to the sacking of the vice chancellor for publishing the list of students admitted into the medical school based on merit rather than on regional balance. For Wordweaver, just as for anglophones, merit counts first, and a good leader must give priority to merit. The 'we'-group is traceable in these excerpts just like in the others. Like before too, 'we' includes francophones and also excludes them. Where they are included, reference is made to the country and where they are excluded, reference is limited to the anglophones alone, not only as a nation but also as that group that has the success and leadership skills to take the country in the right direction.

THE TENACITY OF DIASPORA IDENTITIES

Given that diasporas exist out of the original home and so people in the diaspora have to adapt to or adopt cultures of the host country, it is normal that identities change over time and under such circumstances. Social and linguistic realities of the two contexts may be exceedingly different that maintaining the original identity is difficult or sometimes impossible. Nowadays when people spend more time with their computers than otherwise, we expect virtual communities to grow even stronger. Does it mean virtual community identities will also grow stronger? A definite answer to this is not readily available because of the changing status of the internet, the reduction of boundaries and barriers to free travel of people, and the rapid growth in technology. But using the examples above we could say a few things about the tenacity of the Cameroon anglophone identity constructed online.

If we place the examples above within Figure 1, it becomes somehow visible that the tenacity of the anglophone identity in virtual diaspora communities is not completely guaranteed. The question we ask is, how united are the anglophones as a solid in-group then? Figure 1 does not suggest that there is a 100% agreement between all members of the community. It, however, gives room for disagreements and challenges, and as excerpts 11, 12 and 13 show, these are conducted within the community and not by ostracising members from it. As Danny Boy says in excerpt 13, the members are “not fighting a war here in cyberspace…but simply exchanging our points of view”. Note that s/he refers to Rexon as ‘brother’ in spite of Rexon’s earlier un-courteous criticism of him or her.

From openly scathing criticisms to direct insults of fellow members in the community, the anglophone identity that is sometimes very strong when it comes to certain topics, gets weakened. In excerpt 11, UnitedstatesofAfrica directly insults four other members, calling them “pseudo-intellectuals”, “dim wits” and “blockheads” who are “flat out stupid”. Although s/he attacks the attribute of morality identified with anglophones, the criticism is directed only at these community members who arrogate it to themselves rather to the community as a whole. This is a strong sign of the existence of a community. Its history is retrievable and its members are identifiable in the way they present themselves, interact with others, and react to issues common to the community.

Excerpt 11

> UnitedstatesofAfrica: This is the problem I have with pseudo-intellectuals on this forum like Rexon, Ma Mary, WateSHIT, Simplice the Simpleton and the rest of the bandwagon of dimwits. They come here and parade their verbosity; mixing up words they crammed from dictionaries and ideologies they memorized from Karl Marx textbooks. Yet, they fail to address the real issues. They have built a Utopian image of Cameroon in their minds and they actually think that change will come through petty writings on the internet and 1 dollar donations to their history clubs. Are you kidding me? Either you guys are flat out stupid or you have your hidden political agenda. And the blockheads have the audacity to shamelessly ride the higher horse of morality; talking down on everyone with an aura of empty confidence. Rexon, take special note. Morons!

Other threats to this identity are “blacklegs and greedy people” (excerpt 12). In this case, not only francophones are blacklegs and greedy but also some anglophones. For the first time, at least in these excerpts, the anglophone in-group is identified with some of the vices generally attributed to the francophones. The “greedy politician within the anglophone community” (excerpt 12) also steals, bribes or is bribed, and does not see anything wrong in the incorrect or discriminatory policies of the francophone government. Interestingly, they are not treated as outcasts or are they dismissed from the community; they are rather referred to as traitors who “betray a course” (excerpt 12).

Excerpt 12

> Rexon: The problem is with the Cameroonian people and Cameroonian intellectuals. Lots of Black legs and greedy people who are not consistent. With majority Cameroonians, you cannot plan anything to overthrow the government. There would be people around pretending to be an opposition just to gain fame and continue the theft of state resources. When these sort of Cameroonians are singled out and bribed, they discourage others who genuinely wanted change. People have diverse reasons to be willing to betray a course, tribalism, nepotism, hatred of the freedom of Anglophones, greed, etc. An

> ordinary Francophone or a greedy politician from within the Anglophone community will claim not to see anything wrong in the abandonment of the Limbe shipyard project and the Limbe deep seaport, while a previously unknown project of the Kribi deep seaport is being constructed.

It is not only the anglophone in-group in real space that is threatened by this but also this online community. As excerpt 6 states, some anglophones on the forum like "Agbormbai and Mukete were employed here to write good things about this criminal government". In the same way that real societies or real identity groups are infiltrated by non-group members for various reasons and through various strategies, e.g. identity opportunism, so too are online or virtual communities. The two 'members' referred to in excerpt 6, were indeed debunked, exposed and disgraced on the forum. They never contributed again, at least not under these names.

Excerpt 13

> Danny Boy: Rexon, I think I know who Ayang Luc is, but fail to see the point of your posting above. Do you mean Yang Philemon-an aboriginal anglophone of West Cameroon extraction? I thought our conversation has since moved on. Ha ha ha. Merry Christmas brother. Do be courteous next time. We are not fighting a war here in cyber-space, but simply exchanging our points of view. Once again, a happy Xmas and a prosperous new year to boot!

In spite of the criticisms and insults community members levy on each other, they still maintain the in-group bonds that keep them together. As said above, Danny Boy still calls Rexon 'brother' though the latter insults him/her. It indicates, therefore, that the community will continue to exist, dealing with the problems that come up between its members. The extent of the insult does not really matter because, no sooner than later, they get strongly united by issues happening back home to which they *must* react. Most of these issues deal with countering what they consider to be the oppressive power of the francophones and the government.

CONCLUSION

This chapter has been concerned with the construction of identities online, the tenacity of such identities, and the discursive strategies used to signal in-group belonging in such identities. Among other things, the chapter has illustrated that social structure could be reflected in language irrespective of the medium through which this transmission takes place. Identities, though fluid, non-static and heterogeneous, are inevitable to communities that believe they belong together and so must defend those characteristics or traits that make them form a group. Though this is performed, in the examples presented here, online using different techniques imposed by the medium, it resembles patterns of inclusion and exclusion, positioning and re-positioning, ritual and non-ritual, boundary opening and closing, praise and chastisement, etc. that are noticeable in non-virtual spaces. Just as people lend support to others in real communities, so too do those in virtual space support each other, if not by physical assistance then by words of encouragement and endearment. This keeps the community intact. As excerpt 14 illustrates, members guard against distractions that could break the community; they watch out for traitors and black legs who might be in or have infiltrated the community; and advise each other on how to get out of problems.

Excerpt 14

> M Nje: My dear friends, Ahmadou Ali by any standards has insulted 6 million+ Southern Cameroonians. What are we going to do about it? That is the question we

> need to answer. I see his action as a classic style in this criminal enterprise. There are trying to divide us between SCNC and non-SCNC. Place do not fall prey to this. Let us be united.

An interesting aspect of this online community is that there is no moderator. Although they do not use a specific blog-like site, they still feel like they know each other very well. They 'only' meet on the pages of *The Post* but still respect certain unwritten rules that keep them united. As M Nje advises in excerpt 14, "Let us be united", and by this s/he means, the community should stay together even if infiltrators try to divide its members, or even when they differ in their opinions, and even when they insult each other.

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KEY TERMS AND DEFINITIONS

Cameroonian Anglophones: Anglophones in Cameroon are those who occupy the two provinces or regions that were under British rule during colonialism. They use mostly English, since it is the language they inherited from colonialism. In political circles these two provinces are treated as one and are often erroneously placed on the same ethnic level with ethnic groups like the Betis, the Doualas, the Basaas, etc. The definition of who an anglophone is has been approached from different perspectives: historical, political, linguistic and geographical (see Figure 1).

Diaspora Community: Any community of people from the same country or region living in another country (or countries). They are considered a community if they consciously collaborate on basis of their belonging to the same country or region of origin. Collaboration could be through meetings and social events that are or are not linked to life in the country of origin.

Identity Opportunism: It refers to "the spontaneous changes, fluctuations, and adaptations speakers make each time they use one language or another for specific reasons. It covers those strategies that make the use of one language more acceptable than the use of another; that give a sense of attachment or status to a given language and its identity; that make one feel at home and linguistically secure, at least for the moment, in given contexts and situations; and that provide linguistically solid foundations for the exclusion of out-group and non-group members" (for more see Anchimbe, 2006, p. 249).

SCNC: It stands for the Southern Cameroons National Council formed in 1994 after the second All Anglophones Conference that held in Bamenda, North West Region. Its major goal is to ensure that the anglophones secede from the Republic of Cameroon and form their own country following colonial boundaries. Different names have been proposed for the would-be country, Republic of Southern Cameroons, Ambazonia Republic, etc. The Council mounts pressures of various kinds on the government, e.g. it sued the government of Cameroon to the United Nations, declared independence of Southern Cameroons, and organises meetings from time to time. The government, however, treats it as an illegal organisation and has been arresting and detaining its members.

The Post Newspaper Cameroon: This is a private owned, English newspaper that has been running for about two decades now. It is noted for its critical perspectives on the government. It reports heavily on the anglophone regions. Its original website, www.postnewsline.com, was recently changed in 2009. The newspaper is now located at: www.thepostwebedition.com/Index.aspx. The interactive feature was turned off for some months but was reinstated in June 2009. Many members of the community lost contact with each other. The move has reduced traffic on the website and reduced the number of the community. In fact, there is a new community building up now with new names. The former site is now occupied by the blog "Upstation Mountain Club", and it gives readers the chance to react to news stories and other articles culled from many sources, including newspapers, magazines, and other blogs.

Virtual Communities: Any group of people, whether consciously organised or not, who frequently share ideas in forums, websites and blogs on the internet or through emails. The communities may be centred around a particular event or around a particular group of people: diaspora from a given country, speakers of English in a non English-speaking country, etc. some of them have moderators who update the site, regulate traffic on the site, sanction those who do not follow the rules, and answer questions from members and non-members alike. These communities have also been referred to as online communities.

Virtual or Online Identity: This could be looked upon from two perspectives: individual and collective identities. It refers to the ways in which an individual presents himself or herself in an online community or to how members of an online community construct themselves as belonging together, as sharing the same features or characteristics, and as propagating similar ideas. The traits of virtual identities, interestingly, are generally discursively projected. Pictures may also be used but the words individuals and communities use to describe themselves or others makes us know where they belong and what they profess.

Chapter 9
Multimodal Communication and Meta-Modal Discourse

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ABSTRACT

This chapter presents an analysis of recordings of workplace interactions conducted with videoconferencing software. Video-conferencing offers users the widest variety of channels, or modes, of interaction, combining video with voice chat, text chat, whiteboard capabilities and collaborative document manipulation. The video-conferencing environment is therefore conducive to multimodal communication, defined in this chapter as the collaborative use of any one of these modes or combination of modes within one communicative event. The standard form of multimodal communication is a combination of video, voice chat and whiteboard application. The use of other modes is shown to reflect distinct communicative functions. Communicating via multiple modes can be technologically demanding and consequently affect usability, potentially necessitating the use of meta-modal language among video-conference participants. Overtly attending to the modes of communication during online interaction is therefore shown to be part and parcel of video-conferencing, serving to initiate repairwork and facilitate the progression of communication.

INTRODUCTION

Computer-mediated communication (CMC) is not only a relatively new field of research within linguistics, it is also a subject that enjoys a state of steady renewal, due to the rapid pace at which information and communication technologies (ICTs) are developing. Advances in ICTs likewise affect the mediation of communication in the digital environment. From the humble beginnings of telecommunications, CMC has radically evolved to enable social interaction in the form of both synchronous and asynchronous communication, such as instant messaging, podcasts, and online

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conferencing, or e-mails, bulletin boards, and wikis. The different forms of CMC in turn breed variations in language use. In addition to adapting to the different modes of communication available, users learn to exploit them in order to create a dynamic form of interaction.

While CMC is traditionally associated with text-based interaction, video-mediated communication (VMC) includes audio and visual modes as well. Video-mediated communication, such as video-conferencing, thus offers users the widest variety of modes of communication, combining video with voice chat, text chat (i.e., instant messaging), whiteboard capabilities, and collaborative document manipulation. The use of any combination of these modes of synchronous communication therefore renders video-conferencing a form of multimodal communication (Herring, 2002; Soukup, 2000). Furthermore, like most interactive communication, video-conferencing normally takes place among two or more participants, and thus allows for simultaneous multiuser, multimodal interaction.

The availability of many modes of communication combined with multiuser capability sets the scene for potentially demanding or even chaotic interaction sequences, begging the question of how users navigate the multimodal video-conferencing environment in order to communicate effectively. The aim of this study is thus to identify and analyze features of interaction unique to the video-conference environment for the purpose of revealing discursive practices which contribute to effective video-mediated communication.

In this chapter we present an analysis of the emergent features of communication specific to the video-conferencing environment. Our analysis focusses on the multimodal communication as a whole and the meta-modal discourse in particular, both of which are identified as characteristic of the featured video-mediated interactions. In each interaction, the standard form of multimodal communication is a combination of video, voice chat and whiteboard application. The use of other modes or combination of modes will be shown to reflect distinct communicative functions. Furthermore, the integration and use of many modes of communication can be technologically demanding and affect usability, ultimately resulting in the use of meta-modal language among video-conference participants. Overtly attending to the modes of communication during online interaction will be shown to be part and parcel of video-conferencing, serving to initiate repairwork and facilitate the progression of communication. This chapter will thus show that different modes of communication in the video-conferencing environment are used for different purposes, and that the existence of multiple modes of communication is brought to the foreground via metamodal discourse, helping interactants navigate the medium.

LITERATURE REVIEW

Video-Mediated Communication

Enabled by all forms of information and communication technologies, the virtual workplace has been promoted as a viable alternative to shared physical space (Barnatt, 1995; Boutellier et al., 1998; Gorton & Motwani, 1996; Grimshaw & Kwok, 1998; Morgan, 1993), thus rendering obsolete (at least in the minds of many) the notion of co-location as a requirement for teamwork and collaboration (Sapsed et al., 2005; Townsend et al., 1998). Not surprisingly, virtual workplaces are most prevalent in business settings, where they have been established first and foremost in answer to increased globalization and the subsequent dispersion of human resources in the corporate environment (Townsend, 1998).

Different forms of ICTs enable meaningful interaction from a distance, but the use of video-mediated communication technologies has been positioned as key to facilitating meaningful teamwork activity in virtual workplaces (Morgan, 1993; Nguyen & Canny, 2007; Townsend et al., 1998). Video-mediated communication has been shown to be comparable to face-to-face interaction (O'Malley et al., 1996), supportive of frequent and complex interactions (Reiserer et al., 2002), and rich enough to accommodate a number of workplace tasks (Fletcher & Major, 2006; McGrath & Hollingshead, 1993). Nevertheless, most research on video-mediated communication highlights problems with video-conferencing, including bandwidth issues (Angiolillo et al., 1997) and distortion of audio signals or visual images (Benford et al., 1996; Heath & Luff, 1991; Rutter, 1987), all of which can interfere with the sending and receiving of pragmatic cues, such as gaze or intonation (Barnard et al., 1996).

Audio and visual cues are vital to structuring and sequencing interactions, and any disturbance or obscurement will naturally have consequences. In general, it has been found that video-mediated conversations commonly include fewer speaker turns, longer lengths of turn, and fewer interruptions than face-to-face conversations (Cohen, 1982; Cook & Lalljee, 1972; Rutter & Stephenson, 1977). Furthermore, these characteristics have been found to be even more salient in video-mediated conversations exhibiting delays in audio or visual transmission (Cohen, 1982; Kraut et al., 2002; O'Conaill et al., 1993; Isaacs & Tang, 1994). O'Malley et al (1996) also found length of turn to be longer in video-mediated than in face-to-face conversations, but interruptions occurred more frequently. They propose that, despite access to visual cues, interlocutors of video-mediated conversations experience a lack of confidence with regards to mutual understanding, leading to over-compensation by means of an increase in verbalizations. It was further suggested that in remote communication, the availability of visual signals may be conducive to more frequent comprehension checks in task-based interaction. On the other hand, after finding less simultaneous speech overall and fewer interruptions in video-mediated conversations than in face-to-face interactions, Sellen (1992) suggested that video-conference participants experience a reluctance to make moves to take the floor. Comments from her study subjects about the video environment causing feelings of distance and a lack of involvement in the conversations help to explain their reticence. Caution may be linked to formality. Interruptions and a higher frequency of short turns are characteristic of informal interactions; video-mediated conversations tend to be more formal than face-to-face conversations (Carle, 2001; O'Conaill et al., 1993) with interlocutors exhibiting cautious behavior (O'Malley et al., 1996).

Comparison studies persist as a distinct trend in the research of video-mediated communication (O'Malley et al., 1996; Reiserer et al., 2002; Sapsed et al., 2005; Sellen, 1994), perhaps due to an assumption that video-mediated interactions are only alternatives to 'the real thing', i.e., face-to-face conversations (Inoue et al., 1997; Meier, 1998), and to the fact that constant advances in information and communication technologies encourage continued comparisons as video-mediated communication becomes more sophisticated (recent examples include Cornelius & Boos, 2003; Fletcher & Major, 2006; Nguyen & Canny, 2004; van der Kleij et al., in press). Research on video-mediated communication is furthermore largely experimental, which, in our view, is unfortunate. First, results of experimental studies can be conflicting due to different task types and conditions of experiments, and thus their interpretation can be unreliable, ultimately making application difficult. Second, the focus on identifying the differences between face-to-face and video-mediated communication seems to deny the latter the status of a worthwhile subject of analysis on its own, such that communication is approached from a binary perspective: it is either face-to-face or not face-to-face. In other words, video-mediated communication tends to be analyzed in terms of the features of face-to-face communication that it manages or fails to recreate in experimental settings. The result is a lack of understanding of verbal processes and their relation to task-performance in video-mediated communication. Clearly, there is a need to move "beyond [the structure and timing of turn-taking]" (O'Malley et al., 1996, p.179) in order to indentify "the extent to which the media facilitate collaboration in the work place" (Heath & Luff, 1991, p.100).

The data presented in this chapter are examples of video-mediated communication in the form of spontaneous, non-experimental video-conference interactions. We expand upon VMC research by going beyond the issues of bandwidth problems, turn-taking, and discourse structuring and consider instead the medium-specific features which contribute to effective video-mediated communication. Analyzing the mediation of content via multimodal communication, we propose that different modes correspond to different communicative goals. Furthermore, we propose that the video-conference environment is conducive to explicit talk about the multiple modes of communication in use, such that multimodal communication is characterized by meta-modal discourse.

Multimodal Communication

The term 'multimodal communication' is used within psycholinguistics, semiotics, and computer-mediated communication, and thus a brief overview of what it may variously refer to as well as a disambiguation of its use in this chapter are necessitated.

Within psycholinguistics, multimodal communication refers to the "co-occurrence of different communicative channels, including speech, eye gaze and facial expressions" (Louwerse et al., 2006, p. 1717). A psycholinguistic approach to multimodal communication reflects an effort to identify the relationship between linguistic (e.g., speech) and paralinguistic (e.g., eye gaze or gestures) modalities, not only by comparing how they are individually used in communication, but also by investigating their co-occurrence. The goal is to understand the conditions of the co-occurrence of different channels, and whether co-occurrences are merely incidental or rather are associated with added information (Louwerse et al., 2006).

Multimodal communication from a semiotic perspective refers to the use of language "contextualized in conjunction with other semiotic resources which are simultaneously used for the construction of meaning" (O'Halloran, 2004, p.1). The semiotic approach to multimodal communication has as its goal to account for the use of texts and images in the construction (or co-construction) of meaning, as these different modes of communication convey information and meaning in different ways (Hull & Nelson, 2005). The theoretical orientation to semiotic multimodal communication is a rejection of the idea that language is an isolated phenomenon (Kress & van Leeuwen, 2001), and challenges the plausibility of analytical procedures which "attend to communication as a purely linguistic event" (Kress, 2001, p.42). Taking the lead from this orientation, multimodal discourse analysis involves "the multimodal study of texts [...] from a social semiotic orientation to discourse and meaning making" (Constantinou, 2005, p.615).

Within CMC research, a 'mode' is a distinct channel of communication enabled by technology and therefore includes the range of channels used in synchronous and asynchronous computer-mediated communication, such as voice chat, text chat, email, etc. The term 'multimodal communication' is used in two different ways in CMC literature. In recognition of the fact that CMC is not limited to one mode or format, multimodal communication can refer to the practice of using two or more different formats of computer-mediated communication. This interpretation of multimodal CMC applies to the deliberate and non-simultaneous use of multiple formats, and is central to the proposal that different modes of communication can be mapped to different communicative goals (Kollock & Smith, 1996; Ogan, 1993; Parks & Floyd, 1996; Rheingold, 1993). A good example of the application of this interpretation is Xie's (2008) study of multimodal CMC among older Chinese Internet users, who employed voice chat and, on separate occasions, text-based forums for communication. The findings suggest that the two formats not only correspond to different social functions, but were employed by the study subjects in complementary ways to develop multidimensional relationships. This finding is in line with the notion that different modes of communication can be variably suited for different tasks (Daft & Lengel, 1984, 1986; Daft, Lengel, & Trevino, 1987). Herring (2002) and Soukup (2000) have similarly suggested that different formats of CMC can be expected to affect online interactions in different ways, and thus “findings based on one particular mode of CMC may not be generalizable to interactions that occur using other modes of CMC” (Xie, 2008, p.731).

Within one format of CMC or VMC there may be more than one mode of communication available to the user. For example, speech or written texts may be supplemented by video or graphical images. Multimodal communication can therefore also be understood as the use of a combination of textual, graphic, oral, audio, or video channels (i.e., modes) of communication within one computer- or video-mediated communication format (Herring, 2002; Soukup, 2000). In this chapter, our analysis has been guided by this interpretation, and thus our use of the term ‘multimodal communication’ refers to the employment of various modes of communication in one format of video-mediated communication (VMC), and within one communicative event. The terms ‘channels’ and ‘modes’ can be used interchangably. With graphic, textual and oral/aural resources available to them, particularly in the video-conferencing enviroment, users can combine modes or choose one that is appropriate to their communicative goals (Hampel & Baber, 2003). In our view, multimodal communication is thus not contingent on the individual’s use of multiple modes. We focus rather on the modes themselves, and how multiple modes can be used in a collaborative, interactive environment for the purpose of mediating communication. Furthermore, we consider the use of different modes of communication to achieve different communicative goals.

Meta-Modal Communication

Each of the interpretations of multimodal communication summarized above recognize that communication consists of the co-construction of meaning via a combination of linguistic, non-linguistic or even para-linguistic resources. From any perspective, multimodal communication is, simply put, a complex process. Computer-mediated communication in particular is becoming increasingly complex, as advances in information and communication technologies provide more sophisticated software applications for synchronous, online interactions.

Both Hampel & Baber (2003) and Hampel & Hauck (2004) point out that the availability of different modes of communication –where ‘modes’ can be understood as either formats or channels of CMC– nicely exemplifies Halliday’s (1986) “alternative realizations of the meaning potential of language” (p.92). However, the combination of audio and visual channels in multimodal VMC makes great demands on its users, requiring them to navigate their own and others’ choices of different modes (Hoven, 2006). In the online-education environment, for example, it has been reported that learners require both technical and pragmatic training in task-appropriate choice of modes, so as to increase their communicative competence (Chun & Plass, 2000; Cornelius & Boos, 2003; Hampel & Hauck, 2004; Hoven, 2006; Kress & van Leeuwen, 2001). The availability and interactive use of various channels in multimodal CMC or VMC is thus likely to contribute to breakdowns in communication of both technical and pragmatic natures, and as a result, the use of meta-language can be expected. Meta-language involves the explicit naming or overtly attending to linguistic aspects of communication, and is frequently involved in dialog management as a resource for clarification or repair (Anderson & Lee, 2005; Anderson et al., 2004). However, as Anderson et al point out, "not all meta-language is a repair, nor do all repairs involve meta-language" (2004, p.1). In their corpus study of the use of meta-language they identify several types of non-repair uses, revealing that breakdowns are not in fact pre-conditions for using meta-language. Unfortunately, the authors conclude little more than this, even though the featured examples of non-repair meta-language nevertheless seem to illustrate that talk about ongoing interaction can allow interlocutors to follow the progression of the discussion and maintain their communicative footing.

The many modes of communication available in the video-conferencing environment make demands on both technology and its users. Multimodal communication is thus vulnerable to breakdowns. Furthermore, the interactive use of multiple modes of communication is likely to result in a heightened modal-awareness among video-conference participants. In this chapter, we recognize these conditions as conducive to meta-language, but we show that multimodal communication in the video-conference environment is also characterized instead by meta-modal discourse. Our analysis illustrates that meta-modal discourse in the form of overtly attending to the various modes of communication during online interaction serves to repair breakdowns and contributes to the progression of communication. Meta-modal discourse emerges as signficantly characteristic of video-conferencing discourse, reflecting the participants overt attempts to manage and facilitate their multi-modal communication.

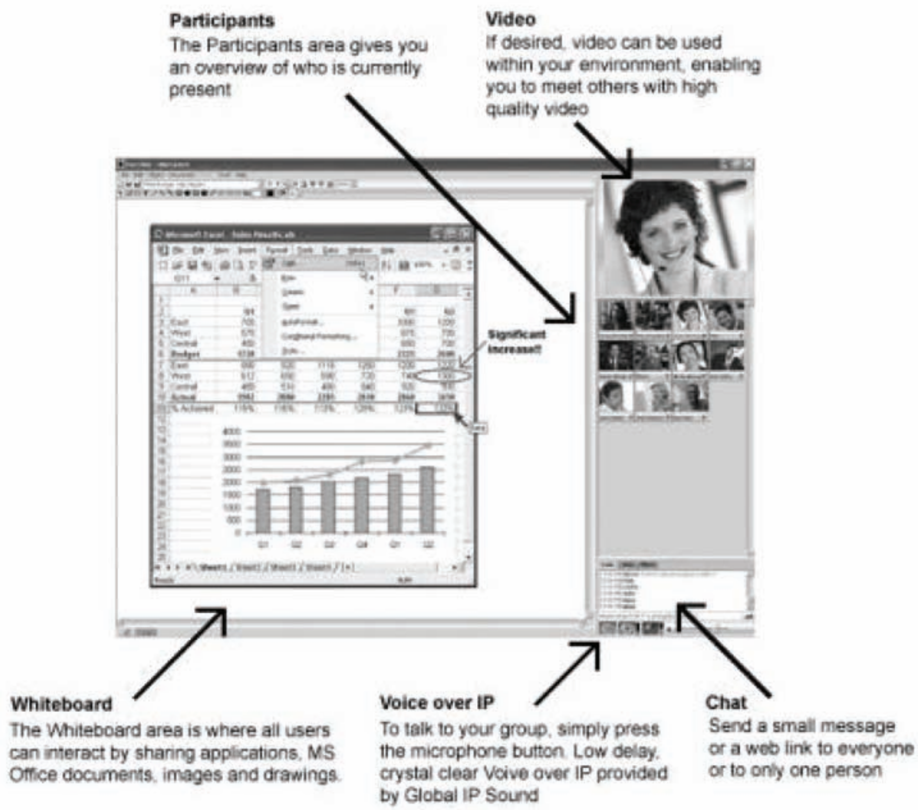
BACKGROUND TO THE STUDY

In this chapter we propose to analyze digital communication in the form of online, synchronous, professional discourse in the multimodal video-conference environment. The data featured in this chapter are in the form of examples extracted from recordings of three interactions via video-conference: a sales consultation, a conference workshop, and a project staff meeting. Each of the interactions was mediated and overtly recorded using the Marratech™ video-conferencing platform, and each features professional workplace discourse. The participants in each of the interactions consented to being recorded, but at the time none were aware that the recordings would be used for research purposes. Final consent was obtained when the recordings were submitted to the researchers/authors.

The data have been extracted from workplace interactions conducted with Marratech™ software. The Marratech multimodal video-conferencing platform features streaming video, voice and text chat, as well as collaborative word processing and whiteboard imaging capabilities (see Figure 1). In the interactions featured in this chapter, Marratech is used to enable distance communication, since many of the participants' physical workspaces are in different countries. Each of the three featured interactions has a unique participant constellation: a sales consultation features a representative in Sweden and a customer in Germany; a conference workshop features six discussants participating from the US, Azore Islands, Portugal or Sweden; and, finally, a project staff meeting is attended by eight employees, variously located in Ireland, Scotland, Norway, Sweden, Germany, and Italy. English is spoken by all participants in each interaction. In terms of discourse, the interactions reflect different purposes. The sales consultation is characterized by requests for and subsequent transmissions of product information, the conference workshop features a lecture punctuated with the elicitation of discussant comments, and the project meeting reflects orderly progression through an agenda.

The fact that the featured interactions take place online in the Marratech video-conferencing environment affects the mechanics of the discourse and, ultimately, the communicative aspects of interaction. The sales consultation took place be-

Figure 1. Screenshot of the Marratech platform. (© 2009 Marratech. Used with permission.)



tween two participants, one a Sweden-based sales representative for Marratech software (SC-1), the other a potential user of the software, making product inquiries from Germany (SC-2). This was an impromtu interaction initiated by the German user who, via the Marratech website, had come into contact with this particular Swedish sales representative, as he regularly makes himself available to offer online support. The two interlocutors are thus strangers, and their spontaneous interaction, guided by a list of questions prepared by SC-2, is characterized by abrupt transitions which are often prefaced by long periods of silence. The sales consultation lasted 42 minutes, 24 seconds.

The conference workshop included seven participants as well as an audience of five attendees[1]. The organizer of the workshop (CW-1) was located in Portugal; as were three of the six discussants (CW-2, CW-3, and CW-4). The remaining three discussants participated from the US (CW-5), Azore Islands (CW-6), and Sweden (CW-7). The content of the workshop was presented via a PowerPoint presentation displayed on the whiteboard, the slides of which each featured a question pertaining to the topic of distance education. The workshop organizer led the discussion by commenting or elaborating on one question at a time, then systematically asked each of the discussants to provide his own answer or comment. The organizer called on each of the discussants by name and signaled the end of their turns by thanking them. The early establishment of this pattern of interaction seems effective: as the discussants could be fairly sure of being awarded a turn, there were no overlaps and very few interruptions, each of which was performed by the organizer only. The duration of the conference workshop was 47 minutes, 50 seconds.

Like the conference workshop, the project staff meeting progressed according to a document posted on the whiteboard, in this case a meeting agenda, and it was also led by one specific participant, who regularly called on the other participants by name to contribute to the discussion. However, while the workshop format required each discussant to answer each question, the project meeting format reflected rather a one participant per item organization. In other words, only one participant was responsible for commenting on one agenda item at a time. Compared to the workshop, the format of the meeting is similarly effective in that the participants contributed only when it was their turn, resulting in an orderly progression through the agenda with very few overlaps or interruptions. The goal of this particular meeting was to review and continue planning the creation and development of a web-based platform intended to facilitate cooperation between small and medium-sized EU companies. The meeting was led by the project organizer, located in Ireland (PM-1), where two other employees were also based (PM-2, PM-3). The five other project members participated from Scotland (PM-4), Norway, (PM-5), Sweden (PM-6), Germany (PM-7), and Italy (PM-8). The total running time of the meeting was 57 minutes, 21 seconds.

ANALYSIS OF MULTIMODAL COMMUNICATION IN THE VIDEO-CONFERENCE ENVIRONMENT

The Marratech video-conferencing platform (see Figure 1) offers multiparty video, voice chat, text chat (i.e., instant messaging), whiteboard capabilities and collaborative document manipulation. Participants using a web camera appear in thumbnail images; the larger video window automatically features whichever participant is the current speaker. The microphone can be permanently activated or turned on only as needed; an activated microphone is indicated by the participant's name appearing in red under his or her image in the participant window. The text box can be used to send both public and private instant messages. A keyboard icon appears when a participant is composing a public message, but there are no indications when participants write or send private messages. The whiteboard can be used for viewing uploaded documents, or for creating new ones. Additionally, there are a number of tools for document manipulation, such as moving, deleting, or pointing to parts of documents.

Each of the three video-conference interactions features a main speaker or dominant participant, whose standard form of multimodal communication is a combination of video (appearing on camera), voice chat, and whiteboard usage. In the sales consultation, the main speaker is the sales representative, SC-1. He uses voice chat throughout the interaction, and his video image appears constantly in the larger window. SC-1 also uses the whiteboard extensively by uploading and manipulating different documents. In the conference workshop, the dominant participant is the organizer, CW-1. He communicates throughout the workshop via voice chat, referring continuously to a PowerPoint presentation uploaded to the whiteboard, and his video image appears in the larger window each time he speaks. In the project meeting, the dominant participant is PM-1, who also uses voice chat to conduct the meeting according to an agenda featured on the whiteboard. During his speaking turns his video image appears in the larger window.

Communication that is mediated via additional modes or combinations of modes represents a noticable deviation from the standard combination of video image and voice chat backgrounded by a whiteboard document. The use of multiple modes of communication, specifically drawing, pointing, whiteboard writing, and text chatting, can be mapped to different communicative goals, as illustrated in the following sections.

Drawing

In each interaction, the whiteboard features an uploaded document which serves as the focal point of discussion and is referred to regularly by the main speaker or dominant participant. Tools featured in the toolbar make it possible for each of the participants to manipulate the documents by writing or drawing on them, or by moving, deleting, or pointing to parts of the document.

In each of the interactions, document manipulation in the form of drawing and pointing is often accompanied by voice chat, serving to mark or emphasize informative content. In the sales consultation, for example, SC-1 explains a product by referring to a previously uploaded diagram on the whiteboard, which features text as well as circles, squares, and lines. Throughout the explanation, SC-1 uses the tools to draw new, similar shapes over each of the ones in the diagram, thus complementing his oral explanation with visual aids and calling attention to particular features of the product.

Pointing

Another more common strategy for directing attention to the whiteboard is the use of the pointing tool. As the default whiteboard application tool, the pointer appears as a red arrow with the user's name whenever a user clicks on the whiteboard. The pointer remains visible as long as the user maintains a left-click. In the sales consultation, only the main speaker, SC-1, uses the pointer, and it is frequently to direct the customer's attention to different product tools visible on the screen. SC-1's usage of the pointer is deictic and vital to the demonstrative context. The primary use of the pointer in the conference workshop and the project meeting, on the other hand, is to mark progression of the discussion. The dominant participants, CW-1 and PM-1, frequently point to specific text in their whiteboard documents, in order to mark the current topic of discussion. Used in this way, the pointer serves to maintain participant focus, and encourages simultaneous progression through the discussion. PM-1, in fact, uses the pointer each time he refers to an item on the agenda, tracking words as he reads them, making large circles when summarizing several items at once, and even keeping the pointer on one particular item for 12 seconds during discussion. As the dominant participant in the project meeting, PM-1 leads by example, and his repeated use of the pointer seems to establish it as customary when discussing the agenda: after 15 minutes, PM-6 asks a question about an agenda item and he, too, uses the pointer to track the words as he reads them.

The conference workshop includes two examples of multiparticipant use of the pointer, both of which further illustrate how it is used to mark or emphasize information. One of the PowerPoint slides presented in the workshop includes a questionnaire grid, where a number of different boxes can be checked corresponding to discussant opinion. The workshop leader (CW-1) asks the discussants to use the pointer tool to indicate their opinions on the grid, but as the six discussants simultaneously start pointing, a visual chaos ensues. The pointer itself is ephemeral, lasting only as long as the user clicks, and leaving no permanent mark. The grid task required the discussants to point at several different boxes, thus resulting in a flurry of appearing and disappearing pointers across the slide. After recognizing his mistake in choosing the pointer for this particular task, CW-1 asks the discussants to instead draw check marks in the appropriate boxes.

The final slide of the workshop includes a message of praise and gratitude for the discussants, featuring text bubbles with the words 'Thank you!' and 'Excellent!'. As CW-1 orally thanks the discussants as well as the viewing audience, many of the members of both groups point at the text bubbles. Again, there is a frenzy of pointing activity, but this time the affect is one of a spontaneous and enthusiastic, albeit silent, echoing of CW-1's acknowledgements. Use of the pointing tool is thus optimal when there is something at which to point, allowing the user to direct attention to specific objects on the screen for the purpose of directing attention, place-marking, or for emphasis.

Whiteboard Writing

There are several examples of two additional modes of communication being employed in the interactions, both of which allow for written contributions. Interaction participants can use the whiteboard word processing tool or the text chat tool. The use of either of these two modes results in visible and more permanent additions to the interaction, but the recordings suggest that they are used for very different purposes. Like the use of the drawing and pointing tools, writing on the whiteboard coincides with voice chat, serving echoic or emphatic functions by recording what is being said. Throughout the sales consultation, SC-1 writes on the whiteboard much of the same factual product information which he simultaneously discusses. For example, SC-2 asks for technical specifications and price quotes, which SC-1 provides orally and simultaneously in writing on the whiteboard. Similarly, in the project meeting, PM-1 announces an up-coming meeting, the details of which he also writes on the agenda (previously uploaded onto the whiteboard) as he repeats them once.

Text Chatting

Unlike whiteboard writing, the text chat feature is not used in conjunction with voice chat. In fact, text chat is only used by participants who do not have the floor. The use of the text chat in the video-conference interactions suggests that it is used for non-interruptive contributions. In other words, text chatting instead allows participants to comment briefly on another's contribution, to engage in parallel discussions or to indicate an interest in contributing, without overtly interrupting or grabbing the floor. Six minutes into the project meeting, PM-1 asks PM-2 to comment on an agenda item. PM-2 activates his microphone and, with an alarm clearly audible in the background, explains that a fire alarm has gone off. He asks PM-1 to move on to the next item of the agenda, and to return to him when the alarm has been turned off. PM-6 also uses text chat to acknowledges PM-2, as seen in Example 1. In all examples, a time stamp appears in square brackets corresponding to how many minutes and seconds have transpired since the start of the interaction. Text chats have not been edited for spelling or grammar; voice chats (in double parentheses and italics) have been transcribed for content only and therefore include no phonetic information or indications of timing.

Example 1, project meeting

[07.30] PM-2: Fire alarms gone off, please bear with us. If you see smoke we are out of here !
[08.10] PM-2: We have to follow protocall and evacuate, be back asap
[08.10] PM-6: ok
[17.15] PM-2: we are back

By using text chat, PM-2 is able to provide status updates and explain his actions -he can be seen in his thumbnail image standing up and leaving his room- without further disrupting the meeting with the alarm sounding in his workspace background. Upon his return, he sends another message, even though he can be seen in the thumbnail reentering his workspace. PM-2's use of text chat for this message can be understood as an effort to signal his availability without interrupting the discussion. Making non-disruptive comments seems, in fact, to be the main purpose of using text chat. There are very few interruptions in any of the three interactions: each is structured according to a question-answer format, and, in the multiparticipant project meeting and conference workshop, speaking turns are furthermore assigned by the dominant participant via direct address. The use of text chat reflects a general desire to maintain the established order by avoiding interruption, even to make on-topic comments. In the following conference workshop example, CW-1 has asked each of the discussants to comment on the kinds of virtual environments they each have had experience with in the distance learning context. After the last discussant completes his turn, CW-1 continues to the next slide, introducing the topic of virtual classrooms compared to traditional classrooms. While CW-1 is talking (indicated by <VOICE CHAT>), CW-7 and CW-5 each send a text chat. CW-1 asks CW-6 to comment on the new topic, and CW-6 speaks until the timestamp of 24.03. After completing his turn, he too sends a text chat (at 25.20), commenting on CW-5's contribution:

Example 2, conference workshop

<VOICE CHAT>
[21.35] CW-7: Good input
[22.07] CW-5: hope we will have time to discuss future of virtual classroom
<VOICE CHAT>
[25.20] CW-6: that would be interesting

Discussants in the conference workshop are called on to answer questions or comment on specific topics, but they are not given any overt opportunities to comment on each other's contributions, as CW-7 does above, or to continue the discussion beyond the scope determined by CW-1, as CW-5's comment suggests he would like to do. In the following example, a brief continuation is achieved via text chat. As the conference workshop comes to an end, CW-1 makes concluding remarks. While he is talking, CW-2, CW-7, and CW-5, who have each already commented on the last slide, continue the thread by engaging in a sub-discussion:

Example 3, conference workshop

[19:58] CW-2: I agree with your point of view. But I think that human contact among students can happen in the same way
[19:59] CW-2: And onn the other end, I think it's *doable* but not necessary immediatly
[19:59] CW-7: ☺
[19:59] CW-2: yeah
[19:59] CW-2: ☺
[19:59] CW-5: thanks

Text chats functioning as sub-discussions run parallel to the main discussion. It is normal for sub-discussions to be conducted without causing disruption to the main discussion. However, public text chats are visible to all video-conference participants, and thus sub-discussions or individual participant comments can potentially be integrated into the main discussion by being overtly acknowledged by a speaker. In the following example, CW-1 has asked whether all students in the virtual learning environment should be required to have certain technological capabilities. CW-5's immediate text message in answer to this question goes unacknowledged. Later, however, in answer to a question about whether face-to-face classes can be replaced by virtual classes with only minor adjustments, CW-7 text chats an answer (No...), but it is CW-2 who is first called on to comment. At the end of CW-2's turn, CW-1 acknowledges both of the past text chats, mistaking CW-5's contribution as applying to the current question, as opposed to the previous one (double parentheses and italics indicate a spoken turn; in the interest of space, non-relevant voice chat is omitted):

Example 5, conference workshop

[34.01] CW-5: it depends
<VOICE CHAT>
[40.27] CW-7: No...
<VOICE CHAT>
[41.08] *((CW-1: ok, CW-7, you can say 'no' loud and clear.))*

<VOICE CHAT>
[41.50] *((CW-1: CW-5, can you verbalize 'it depends' please?))*

Such pre-turn text chatting seems to mark the user's desire to be assigned a turn, which only occurs via acknowledgment of the use of an alternative mode of communication. This example thus suggests a causal relationship between multimodal communication and meta-modal discourse.

ANALYSIS OF META-MODAL DISCOURSE IN THE VIDEO-CONFERENCE ENVIRONMENT

In this section, we consider the practice of overtly attending to the modes of communication used in the video-conference environment. Due to the online nature of video-mediated communication and the number of different modes enabled by the Marratech video-conference platform, checks of connectivity and functionality can be expected to occur, particularly at the start of interactions. For example, in the sales consultation, the interaction begins with SC-1 checking SC-2's audio capability. There is no direct response to this check, only a question about the product, sent by text chat. SC-1 answers that question at length by voice chat, and then, after a period of silence, checks SC-2's audio again:

Example 6, sales consultation

[00.01] *((SC-1: okay, but you have the, eh, possibility to hear me? you can hear my words right now? is that correct?))*
[00.09] SC-2: Is there a server-version of marratech? So i can install it on my own company servers...
[00.11] <VOICE CHAT>
[01.08-01.22] <SILENCE>
[01.22] *((SC-1: but you can hear my voice right now? is that so?))*
[01.31] SC-2: Am I muted? Or are you talking on another channel?

The many modes of video-conferencing make demands on the users, requiring them to coordinate technology and communication. Malfunctions or a participant's own failure to properly manage the modes can disrupt the interaction, which often ultimately requires a repair. Repairwork is initiated by naming the cause:

Example 7, project meeting

[02.50] *((PM-1: okay, yeah, we haven't resolved that so, uh, we'll put a question mark over you for the moment. uh, PM-2, are you coming?))*
[02.54] *((PM-2: uh, yep, I'll be there.))*
[02.56] *((PM-1: okay, uh, PM-8, are you coming to that?))*
<MUFFLED NOISE>
[02.59] *((PM-8: um, I have um-uh))*
[03.08] *((*
PM-1: there's some terrible feedback from somebody, I don't know. PM-3, you're not on twice, are you?))
[0314] *((*
PM-6: con-please continue. it was PM-2 playing with his microphone.))
[03.16] <LAUGHTER>

The participants' laughter in Example 7 reflects a sympathetic recognition of the occasionally daunting task of successfully managing the modes of video-conference communication. In the following example, SC-1's laughter also implies an inherent difficulty in managing multiple modes of communication, as he suggests that SC-2 may prefer silence so as to focus on only one mode, the text chat. SC-2 has neither a camera nor a microphone, and thus he is limited to receiving audio and video signals and sending text chats. A particularly long silence of 20 seconds prompts SC-1 to comment:

Example 8, sales consultation

[08.56] ((*SC-1: I can see that you're typing*[2], *that's why I'm quiet*, <laughs> *so you can, you can focus on typing.))*

Attending to SC-2's mode of communication serves to facilitate the progression of this interaction, in part by allowing SC-1 a way of filling the silence, but more significantly by showing an understanding of SC-2's behavior in this particular interaction.

In the conference workshop as well, it is silence which causes a participant to attend to a mode, using meta-modal discourse as a turn-taking strategy in order to facilitate progression of the discussion. When CW-1 poses a question, but fails to immediately call on a discussant to answer, CW-6 takes the floor, explaining the move by referring to his microphone, which is still on since his last comment.

Example 9, conference workshop

[08.11-08.26] *((CW-1:* <voice chat>*... are they enough for online tutoring job?))*
[08.26-08.32] <SILENCE>
[08.33] ((*CW-6: well, since I have the microphone-))*
((-on I can start answering that ...))
((CW-1: okay, go ahead))

Multimodal communication requires users to multitask. Technical disruptions or a lack of pragmatic cues can compound the difficulties inherent to video-conferences. Meta-modal discourse serves to initiate repairwork, thereby facilitating the progression of the interaction.

DISCUSSION

Communication and information technologies have enabled distance communication, such that co-location no longer figures as a requirement for interaction and collaboration. Advances in technology result in ever more sophisticated forms of computer-mediated communication, incorporating audio, video, graphic, and textual features. In business settings in particular, globalization has intensified the need for effective interaction by distance. The virtual workplace, created and maintained by video-conferencing software, has emerged as a viable alternative to shared physical space.

Workplace interactions are bound to neither a particular setting nor a particular mode of communication, and thus they may take place in any kind of physical or virtual environment, and be conducted via oral or written channels. As such, the defining characteristic of workplace or institutional interactions is not where they take place, but rather how they distinguish themselves from non-professional interactions by being "work- or task-oriented and 'non-conversational'" (Drew and Heritage, 1992, p. 59). Generally, institutional interactions involve at least one interaction participant who is oriented to a "core goal, task or identity conventionally associated with the institution in question" (p. 22). They are further formed by varying degrees of formality, whereby the form of interaction is both conventionalized and predictable (albeit culturally variable). Such formality imposes restrictions on contributions, affecting the overall structure and organization of interaction.

As examples of virtual workplace interactions, the video-conferences featured in this chapter have in common the aspect of being goal-oriented: each takes place for the sole purpose of procuring and/or sharing specific information. All of the participants are aware of their interlocutor roles in this respect, and thus the interactional structure is rather fixed in that the negotiation of turn-taking is rendered a non-issue: in the sales consultation, the two participants take turns according to a question-answer format, while in the workshop and project meeting, turns are delegated by a designated leader. These practices are in line with O'Conaill et al's (1993) finding that speakers in the video-mediated CMC environment hand over turns formally by naming a new speaker or directly asking a question (p. 420). Thus, in terms of the mechanics of structuring discourse, it cannot be reliably claimed that these work-place interactions would make significant additional contributions to the abundant literature on turn-taking in the video-conferencing environment. Instead, in an effort to move beyond structure and timing in video-mediated communication, we have considered other aspects of interaction, in particular those made salient by the video-conference medium, including how information is variously conveyed via the use of multiple modes of communication, and, as a result, how the video-conference environment is uniquely characterized by meta-modal discourse.

The Marratech video-conference platform allows for simultaneous multiuser, multimodal communication. For one individual user, video-conferencing can be demanding; usability can be further compromised by the involvement of multiple users. The potential for failure or even chaos is evident but seldom the actual outcomes. Participant behavior instead reflects an orientation towards order, a reluctance to interrupt, and a collaborative use of the various modes of communication to establish communicative practices. As examples of the collaborative use of various modes in one communicative event, the multimodal interactions featured in this chapter suggest that singular modes or combinations of modes are strategically employed for different communicative purposes. The video-conference environment is thus ideal for pursuing the investigation of the role of multimodal communication in social practices, for example, as mediational means (Norris & Jones, 2005; Scollon, 2001) or as positioning strategies (Davies & Harré, 1991; Sauro, 2004).

The availability of multiple modes and their role in constructing meaning is made salient by collaborative, multiparticipant use. Successfully managing multimodal communication is facilitated by meta-modal discourse. Participants cope with technical problems or address pragmatic moves by specifically naming or alluding to what they can hear or see transmitted via microphone, speaker, video, whiteboard, or text chat. In the interactions analyzed in this chapter, talk about the modes or mediation of communication is revealed to be a unique, recurring feature of communication in this particular digital environment. Meta-modal discourse is nevertheless conspicuously absent from CMC literature, thus necessitating more research on dialog managment and strategies of repair, particularly in the video-conference environment. The data analysis of this chapter suggests that meta-modal discourse is a direct response to breakdowns in or disruptions to the interaction. It would therefore be interesting to further investigate the relationship between the mediation of communication and the use of meta-language in the digital environment.

Finally, this chapter contributes significantly to the literature of computer-mediated communication by featuring spontaneous, non-experimental interactions in the video-conference environment. Furthermore, we have not endeavored to compare the interactions with face-to-face communication, and in this decision, we hope to establish video-conference interaction as a genre of communication that is best understood in its own computer-mediated context. Our analysis of the use of the multiple modes of communication available to video-conference participants has revealed that different modes–some of which are not available to interlocutors in face-to-face communication–correspond to different communicative purposes. It has furthermore been illustrated that multimodal communication includes meta-modal discourse, which is also unlikely to occur in face-to-face communication. Since the multimodal communication of video-conferences is characterized by interactional features unlikely to be found in face-to-face communication, we argue that it should not be subject to comparison. Instead, and in particular as video-conferencing becomes more sophisticated, the scientific approach should be to focus on identifying the patterns of communication which emerge from different interaction types in the video-conference environment.

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KEY TERMS AND DEFINITIONS

Collaborative Document Manipulation: Multi-user, interactive editing or changing of a document uploaded to the whiteboard space in the video-conference environment.

Computer-Mediated Communication (CMC): Interpersonal interaction (traditionally text-based) via the use of computers or other digital media.

Meta-Modal Discourse: The explicit naming or overtly attending to the modes of communication in use in a CMC or VMC context.

Mode: A channel of communication such as text chat, audio signal, or video image.

Multimodal Communication: The employment of various modes of communication in one format of video-mediated communication and within one communicative event.

Video-Conference: Synchronous, video-mediated interaction featuring two-way video and audio signals between two or more interlocutors at different locations.

Video-Mediated Communication (VMC): Interpersonal interaction via the use of computers or other digital media featuring video and audio signals.

Whiteboard: The space available in video-conferencing environment for drawing, word-processing, or collaborative document manipulation.

ENDNOTES

1 None of the audience members actively participated or appeared on video; furthermore, their profiles and locations are unknown.

2 A keyboard icon appears in the text box when a participant is composing a message.

Chapter 10
'Masculine Normal Guy Here': Lonely Hearts and 'Normal' Gays in Cyberspace

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ABSTRACT

This chapter examines the discourse of dating advertisements on a small-scale dating site, NormalGay.com. I analyse the deployment of linguistic resources of identity-making, in particular, the term, normal, and how members take up or reject this position. Examining the profiles as strategically managed displays of capital on the dating market reveals normal to have a number of meanings which are encoded in different ways. Many profile creators deploy the rhetorical strategy of the enthymeme to covertly define the term with respect to heterosexual norms. Others, who see the dating site as an extension to their off-line lives, define the term against the backdrop of "the gay scene". The interpretation of identity terms such as normal requires construing the positions taken up with respect to their imagining of the community, heteronormative masculinity and understandings of gay male sociality.

INTRODUCTION

This chapter explores the meanings of the term *normal* deployed, dismissed or questioned in the profiles on a dating website/online social network for gay men. The term itself appears in the domain name, *NormalGay.com* and its presence framing the site seems to have inspired members to claim that characteristic for themselves or for the men they hope to connect with, or question the interpretability of the adjective in the context of gay men, or to dismiss it as inappropriate for their identities. The compounding of the two terms seems to suggest to the members of the site a number of meanings. Analysing how the profile owners deploy *normal* in their descriptions of self and target identities reveals their own interpretations of the word. The analysis of discursive strategies incorporating this identity feature into their online presentation of self or rejecting the identity feature demonstrates how they imagine others to understand it. The different interpretations of *normal* and the strategies of using

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it in a text of identity also explains how sociality and relationship-seeking via computer mediated communication requires imagining the community populating an online social network.

BACKGROUND

Research into the lonely hearts print advertisement is not new. Published inquiries have largely focused on heterosexual advertisers. The suite of research that Coupland (1996) and others (Davis, 1990; Jagger, 1998, 2001; 2005; Koestner, & Wheeler, 1988; Marley, 2002, 2008) deliver key findings for linguists interested in the discursive constructions of texts of desire and the desiring and desired identities they contain. Coupland (1996) provides a benchmark for the analysis of the generic discourse architecture of the print lonely hearts ad that has been used in subsequent research conducted by her and others. The majority of research however has taken the heterosexual market place as its subject and seems to be confined to the print media. Non-heterosexual identities on the lonely hearts market has seen little focus on the research (Davidson, 1991; Gonzales & Meyers, 1993; Jones, 1997; Thorne & Coupland, 2000). These studies, however, tend to take a contrastive approach between populations of advertisers, or inquire into the impact of HIV/AIDS on the gay lonely heart. The internet 2.0 revolution too has seen the market migrate to online contexts. It seems that despite the presence of the lonely heart online and a cultural obsession with the possibilities of computer mediated romance, little research has been conducted in this context. Ellison, Heino and Gibbs (2006) provide an excellent analysis of the processes of identity management in online dating contexts. Their research with members of *Connect.com* breaks new ground in understanding interaction and interpretation in this emerging communication domain. Their analysis focuses on managing authenticity while creating an attractive identity and used interview techniques to understand the way participants interpret reference to identity features. This contrasts to the approach taken in this research, where discourse analysis of the texts of profiles allows us to see the self-positioning and identity management in the data.

Of course the development of online sociality has not been invisible to researchers of computer-mediated communication. The emergence of social networking software and the communities and networks built upon them has been of increasing and ongoing scholarly interest. Relevant studies to the research presented here clusters around the work of danah boyd (2004; 2006) and colleagues (boyd & Ellison, 2007; boyd & Heer, 2006; Donath & boyd, 2004). The quantitative analysis of profiles has been central to much of this work, though the focus has often been revealing and mapping the architecture of social networks. How friendship rather than romance is constructed and construed on social networking sites is very much to the fore in boyd's work and sexuality as a key variable in the profiles is not centre stage.

As to dating in online contexts, Lee and Bruckman (2007) and Ward (2008) seem to be pioneering this field, though their research focuses on social networks sites for the former and *Craigslist,* an online classifieds service, in the case of the latter. This transferral of an old genre to a new medium has changed, I argue, the way identities participate in this discourse. The persistence of online profiles allows for new possibilities for sociality on the dating market place that align some dating sites with social networking sites such as *friendster.com, myspace.com* and *facebook.com.* The next section addresses the differences between dating online and the print media and the possibilities afforded the lonely heart in cyberspace.

NormalGay as Dating Site and Social Network

The site investigated in this paper, *NormalGay.com* debuted on the Internet in 2004. This is one of a stable of dating sites run by Andy Wyscocki and Bill Sanderson. Their other sites position themselves with respect to various identity labels that gay men may take up. The two largest are *Bigmuscle.com* (started in 1999) and *Bigmusclebear.com* (started in 2002) which centre on the desired muscularity of the gym-worked male body, with the addition of the qualities of the bear subculture for the latter. Such characteristics include the positive orientation towards body hair (often absent, removed or less valued on *Bigmuscle*) as well as facial hair. A natural burliness, rather than a gym or steroid created vascular muscularity is highly valued on this marketplace as a kind of physical capital. Other sites in this stable include *BigMuscleCollege.com* centring on a younger crowd and *BigMuscleLeather.com* designed to attract the leather fetish subculture of the gay community.

The question is how does *NormalGay* fit into the stable and thereby position its members? An initial reaction might suggest that the *NormalGay* member is defined by what he is not. That is, he is not overly muscular, hairy, neither into leather, nor of college age. Indeed some of this negative identity definition is suggested in the tagline of the site included in the banner, "for men with no category" and in the site's own self-description:

NormalGay is for guys who may not live at the gym, understand, the term "Woof" when spoken to them or just don't like body parts sites.

We do like men with bigmuscles and men of the bear type, but felt this site was needed for all of us. This site lets you create and maintain your own profile and photos. In addition to viewing profiles of guys around the world, you can sort, search and compare yourself to others. http://www.normalgay.com/welcome.phtml

It is clear then that the site does cater for those who may not identify with the other sites, but does preclude membership in more than one. yogibearnyc, for example, references his multiple membership:

Ive been on BMB(25562) for a while and its been an amazing site. Ive met some really great guys and thought I could do the same on this site. Check out my profile there. – yogibearnyc.

(NB: typographic and grammatical errors in the quotes from profiles remain uncorrected). While membership may range across the stable of sites, a profile here rather than on BMB, for example, focuses on the identity description 'normal'. It is an understanding how this term may be taken up or rejected by members which is the subject of this paper. However we need first to interpret what members of *NormalGay* understand the site to be.

In the welcome page message, the site owners not only suggest who the site might appeal to, but also give us the first indications of the differences between online dating sites and their forebears - the lonely hearts print classified of newspapers and magazines. The welcome message alerts us to the fact that the profiles contain visual representations of the members' identities. In fact this is obligatory. However, other technologies are also deployed on some profiles – the embedding of videos and sound files is possible. Other elements of difference are also alluded to in the welcome. The authors suggest that members not only create but also maintain a profile. Not only, then, is there an expectation that membership lasts longer than the two to three week lifespan of an unrenewed print ad, but also that it is not static and can be adapted and changed over time. This persistence and mutability is some evidence towards treating a dating website as more than simply individuals ISO LTR, individuals in search of a long term relationship, but with wider kinds of sociality.

Members can and do treat *NormalGay* as a social networking site in much the same way as *Myspace* or *Facebook* with an additional dating dimension. This is further confirmed by the group chat function, as well as the "I like" system. This seems akin to the "friending" functions on *Facebook* and *Myspace*. On *NormalGay*, when members view a profile, they have an opportunity to press an "I like" button which then records this profile as being liked on their own profile. It is possible to see others' "I like" lists which means one's networks, relatively popularity, and sociality are available for all to view. These functions suggest that members do not opt out when a relationship is formed, but may maintain their profiles for the duration. These features also afford alternative goals for the members reflecting partnering patterns within the gay community. A description of the possible goals is inadvertently provided by the member, NORMALSTEVE whose own intentions are for "friends, one-time, or ltr". That is, some members may not be seeking long term relationships at all, but simply partners for sex. Matching the range of attitudes to monogamy in the gay community, the system does not preclude partners from 'playing alone' or 'together':

We are a couple of gay men that enjoy meeting real gay guys for whatever comes our way. We are just two down to earth normal gay males in Upstate New York. – Todd & Paul Smith

Returning to the welcome message, we get our last clue as to how this social networking/dating site is different from its print-based forebears. The World Wide Web is just that – world wide. Behind the banality of the statement, we see members taking up the opportunity to globalise their search for partners, friends and social interactions. Globalising a dating site matches the globalisation of gay culture in contrast to the locality bound lonely hearts column and indicates the other kinds of social goals of the site other than long term relationships.

The Profile

Getting past the front page, the novice is instructed to create a profile. Much of this member's own page is generated from a template which makes the profile read quite differently to the telegraphic string of descriptive adjectives pertaining to searcher and target in print lonely heart advertisements. Coupland's (1996, p.193) discourse "recipe" for that genre given below:

1. ADVERTISER 2. SEEKS 3. TARGET 4.GOALS 5. (COMMENT) 6. REFERENCE

This structure is echoed in *NormalGay* profiles, but is transformed by the technology and persistence of the profile. The page is headed by the photographic representation(s) of the "advertiser" which the reader may wish to click to enlarge. Below this is the member's username. The names may reference physical or personal attributes "Sincere1", "Indianstud76". Often location is indexed in names - southcoastcali, chicagosolid, or the profile's sexual interests – "leatherwolf", "buttfuck mountain", Some usernames may reflect their offline names –"wmjoe", "psrangermike" as the profile does offer a space for personal names, which may be pseudonymous or real, or evaded, left blank.

Beneath the username are the editable vital statistics generated by the template. While not all are compulsory, they give the reader a more precise indication of the physique of the profile owner and complete the impression given by the photographs in which the advertiser may or may not be headless or clothed. The possible characteristics produced on the page include age, location, height, ethnicity, weight, body type, current relationship status, parental status. In accordance with the dating/sexual connection goal of the site, size of appendage, HIV status and preferred sexual role, top or bottom (expressed as a percentage), can be listed.

With respect to print lonely hearts advertisements, this takes care of the self description in the initial position of Coupland's (1996) genre recipe, but the member usually prefaces his description of the target and goal of the profile with a prose introduction to their identity. Because we are dealing with bandwidth not newspaper column width, or price per word, there is no word length limitations to this 'blurb'. Some are remarkably terse, while others treat this space on their profile as an opportunity for extended self presentation, or use it to update the readers on their lives. Whether long or short, what is immediately noticeable in the online profiles is the near absence of the abbreviations of the lonely hearts column. Gone are the GBM (gay Black male) or GSOH (good sense of humour) of the print advertisement's telgraphese. The only abbreviation to survive is LTR (long term relationship).

These user-generated sections of the profile are texts of identity and desire. They outline the member's claim to a position in the social network of the site, and present an identity in the off line world where it is relevant to their goals and desires in this context. Like their forebears advertising in the print media they are seeking to put themselves forward as likeable and attractive people, targets for other potential seekers, partners, and friends and hence are participating in online impression management (cf Goffman 1959). From this we must conclude that the descriptions of self are strategically managed and the members go some way to highlight their resources or capital that can be exchanged on the lonely hearts market. We shall see that the characteristic *normal* may be deployed or dismissed as a potential strategic resource by different profile writers, and I argue that this is because the meaning of the term is contested on this community. The name *NormalGay* seems to have been arrived at via a definition by what the members are not. This derivation suggests that the term *normal* works by contrasting something as not normal. The problem of *normal* on *NormalGay* is differing interpretations of what the context of *NormalGay* is. For some members, this online space contrasts with other gay social spaces and for others it is an online extension of it.

METHODOLOGY

To investigate the meanings of *normal* and the positions they correspond with, this paper examines a subset of the profiles on *NormalGay* on July 20th 2006. The dataset is limited to those profiles that contain the term *normal* in the self-penned prose section. These were further limited to those that claimed a location in the United States. Despite the fact that the site is global, the geographic bounding of the data set was to offset issues of the discursive constructions of meaning. Connotative meanings are culturally constructed, so the more complex underpinnings of the use of *normal* needed to be confined to a particularly cultural setting. Profiles located in the US, and therefore likely to be owned by speakers of Standard American English (possibly among other languages in their repertoire) dominate *NormalGay.* Moreover, as will be revealed, the existence of an identifiable gay community is an important aspect of understanding of how *normal* is contested. For this reason, the American profiles are the most likely to share a set of understandings about what constitutes the practices of the gay community.

The final data set contained 301 profiles of a possible 3127. While barely 10% of the population explicitly use the descriptor, *normal*, in their texts of identity, a comparison of the frequency of the term on the two larger brother sites, 3.05% on *BigMuscle* and 3.1% of *BigMuscleBear* profiles suggests that the presence of the term in the domain name has encouraged members here to reflect on their relationship to this term. These 301 profiles were then subjected to content analysis, examining whether *normal* was a self- or other- descriptor, whether definitions were asserted for the term. It is these data that we turn to next.

NormalGay is a dating site in the public domain meaning that the content is not password protected. The profiles are public documents open to the general public over the age of twenty one to view. The privacy however of the members, whose profiles are discussed below, is protected. Offline names are not recorded here. Only online user names (slightly adapted to protect the profile owner from search engines) are associated with quotes. Furthermore, for the purposes of this research the members of *NormalGay* were not contacted or interviewed. This research has no interest in mapping online identity claims to offline identity performances. This is so for the following reasons. Such interests tend to privilege 'real world' identity constructions over performances in other worlds online. This focus frequently suggests fraudulence when there are feature mismatches rather than recognition that fluid construction of identity is a feature of both on and offline contexts. Rather, this research focuses on *normal* as a form of capital on the marketplace and is interested in ascertaining what strategic uses can be made from such claims, not their veracity.

THEORETICAL FRAMEWORK

The analytical framework applied to the data set is strictly qualitative. Concerned more with individual strategies in the construction of a self to present in an online context, I am interested here in the meanings behind individual impression management on the site. For this reason I have applied a version of positioning theory (Bamberg, 1997; 2003; 2004; Davies & Harré, 1990; Harré & Van Langenhove, 1998, Harré & Moghaddam 2003) to the data. Positioning theory has its root in the acceptance of identity or self as a fluid and mutable concept. Indeed, the self is shaped by the discursive practices an individual enters into, and indeed for each contextually different communicative event a different self will emerge. These different selves result partially from the different means and resources of producing a self in different communicative contexts and settings – in our case the production of an online self through the possible combinations of text and visual representation has constraints and affordances different to face to face constructions of a self. More importantly, perceived roles and rights, what Davies and Harré dub moral orders (1990, p.13), are different across contexts. In interaction, individuals produce a performance appropriate to the interaction and for the rights and responsibilities they can claim in it. At the same time, making any claims for the self in interaction entails making claims about others in that context. Consequently, interactants are positioning themselves and others while at the same time subject to positioning of their counterparts, or as Bamberg (1997, p.336) puts it:

> Thus, in conversations-due to the intrinsic social force of conversing-people position themselves in relation to one another in ways that traditionally have been defined as *roles.* More importantly, in doing so, people "produce" one another (and themselves) situationally as "social beings".

To analyse positions in interaction Davies & Harré (1990) and Harré & Van Langenhove (1998) developed four elements – self-positioning – taking up a particular role or footing in interaction for the purposes of self-presenting in a particular way; – other positioning – the result of taking up a particular position means automatically positioning the other into a role. For example, to speak from a parental position positions your listener as a child, or child-like. First order positioning is the acceptance of the role you are positioned in – accepting the role of child in the scenario above, while strategic position in these researchers formulations describes the taking up of a position in reaction to being positioned, in a sense undoing the other positioning you have received, i.e., asserting a role different to child which for a repositioning of the speaker who assumed the adult role.

Bamberg (1997, p.337) outlines his version of positioning theory developed specifically for the interpretation of narratives in conversation by reducing the framework to three questions:

- Level 1: How are the characters positioned in relation to one another?
- Level 2: How does the speaker position him- or herself to the audience?
- Level 3: How do narrators position themselves to themselves?

Positioning theory, it must be admitted, was developed for the purposes of analysing talk in interaction, which is at odds with the text of the dating profile here, being computer-mediated written texts. However as boyd and Heer (2006) explicitly argue, profiles in themselves are dialogic. They are an invitation to converse:

The process of developing and interpreting context is simultaneously a foundation for communication and a conversation itself. Conversations occur when people exchange information in a communicative dance, sharing not simply for self-gratification but in order to engage the other person to share in return (Boyd & Heer, 2006 no page number)

Profiles, I argue, are akin to opening moves in verbal interaction. By writing a profile you are engaging with an audience, and therefore despite being artefacts of CMC profiles are ripe for a positioning theory analysis.

DISCUSSION

NormalGay invites men to take up the position *normal*, implying this characteristic is capital on the gay dating marketplace. That is, *normal* is taken to be a desirable quality – in others and the self. As an identity feature, presenting oneself as normal when creating a profile to be displayed on the site is a strategic discursive move. Claiming *normal* possibly positions the profile writer as an appropriate member of the group as well as a holder of a desired capital on this marketplace. There are, however, conflicting interpretations of the meaning of the feature across the profiles. While, this may be expected in any discussion of the term, in this particular community, possible meanings were contextualised by views of the desirability of identifying with offline gay communities. By examining the meanings attributed to the term and how it is taken up or rejected as a position with respect to others in and out of the market, and in this site and off it.

Accepting, Rejecting, and Denying Normal

The profiles reveal a range of positions with regards to normal. Interestingly a number of profiles suggest difficulty with the interpretation of the adjective and embedded the term in a question. While at first reading the examples below might be simply a decontextualised questioning of the semantics of normal that might echo similar questions in the general population, but these were all extracted from the first line of the profile texts, suggesting an explicit response to the invitation to take up normality as capital.

NORMAL .... WHAT is that? – LvBNNkd

If I admit I'm normal does that make me boring? – Livinnc

So am I "normal" probably not. I even hope not. I like being a little different. – DenverBiker

What is normal? I haven't met any, we're all... off. I have to hunt down one of those Q&A's that are so good for these things. – JoeFla

While these members question the validity of *normal* as a form of capital, it seems they are taking the meaning of the term as synonymous with 'average' or 'mundane'. Some profiles explicitly address the site’s invitation:

Normal Gay – with so many different types of gay men, what is really normal? – DMBeef

Others, however, are happy to accept the invitation:

Just a normal guy looking for other normal guys – g8tor67 (his entire text)

I think it is awesome to find a website devoted to “normal” gays like myself. – JEEPNJEANS-GUY06

I am just a normal guy looking for friends with similar interests and or someone to date. – Trentonfm79

These members accept the relevance of the term and apply it to themselves and others here. Here *normal* shows some of the collocations in the corpus of profiles, most frequently appearing with the downtoner/hedge *just* and as an attribute of the noun *guy*. The frequency of the collocation of *normal gay* is noticeably far less. Already this suggests that *normal* is an uncomfortable descriptor for gay male identities in this social network and that *normal guys* are perceived as more marketable on the dating sites.

More interestingly, this acceptance strategy makes no reference to what features are implicated in a normal identity. That is, neither a definition of what constitutes normal nor a definition via negation, i.e., what *normal* is not, is given. This lack of an explicit definition of *normal* suggests that these members at least assume a shared interpretation with the reader and the possible existence of other normal identities on the site. Moreover, the texts do not include a justification for the authors’ positioning themselves in this way. Other profile writers strategise for both.

Overt Definitions

Overt definitions are often presented as clauses of reason. The structure embedded in a main clause with a first person subject constitutes a justification:

I find the idea of this site fantastic since I do not relate myself totally with any of the other “target specific websites”. As a normal guy I like what everybody else like – to have a good time, to travel, to enjoy a good conversation, to spend time doing nothing, to have sex, to go for a walk, to go the gym sometimes, to cuddle, to make new friends etc etc. I think that being within the normal range allows me to have a rich life full of options – Then I need to correct myself and say that I live a normal life and a have a fairly open approach and acceptance towards everything – Georgemiami

I consider myself normal because I make an effort to treat people the way I like to be treated. – Possibly Normal

I am a normal gay person because I do not spend much time at the gym. – EmporioRick

I joined, because I really think I’m just a regular (normal) guy. I don’t have big muscles, I don’t have a big cock, and I’m not a bear either – tenoka

I’m looking for other white, fit, masculine, “normal” guys. My definition of “normal” is a stealth guy who doesn’t show up on gaydar. – heybud

Georgemiami gives us a very detailed description of what *normal* means, indexing both unremarkable activities and a sense of moderation. The final two examples begin to show that definitions are embedded in contexts. The other two profiles are defining *normal* by what it is not. And yet, their definitions are startlingly different. EmporioRick proposes the body as the site of normalcy, and contrasts himself with the hypermuscular gay man who might inhabit both the gym and the brother dating site, *BigMuscle*, while heybud suggests a normal gay man is one whose homosexuality is invisible to gaydar – a gay man that other gay men would not recognise. Rather than contrast normal with another identity (specifically) available to gay men, he is perhaps proposing another kind of normal identity usually associated with heterosexual males.

Connell's (1987; 1995; and Connell & Messerschmidt 2005) now widely referenced concept of hegemonic masculinity is a useful tool in understanding the ranked values of varying performances of masculine identity. Hegemonic masculinity is a constellation of identity features which are idealised as natural and powerful, and crystallize to form a dominant version of masculinity for a particular culture through which other performances of gender are subordinated. An indispensible feature of hegemonic masculinity is heterosexuality. It seems to me that this profile through reference to an unremarkable, unnoticeable masculinity is drawing on this ideal. Gay men, by definition cannot embody hegemonic masculinity, but may be able to configure many of the other features of hegemonic masculinity in their identity performance. Moreover, given the ideological nature of this evaluation of a particular masculine performance, it is unsurprising that identities that gain no dividend from it still support it and align themselves with its features. "Straight" styles of masculinity, then, are highly desired by some on the gay market place, and contrasting themselves with features stereotypically associated with the gay community or "scene". From the hegemonic masculine viewpoint, identities embedded in the gay community cannot be normal. Therefore a rejection of the gay community is a form of strategic self-positioning that reveals the profile's position on both masculinity and its features, and the gay community itself. Setting himself in opposition to the gay community, heybud, claiming not to show up on gaydar, positions himself as closer to a hegemonic norm.

Covert Definitions

The examples above highlight the strategy of providing overt definitions in the prose section of the profile. There are however many who take up the self-positioning as normal who do not explicitly define the term. From examining the immediate cotext of *normal* in their texts, we can see that a covert definition is in operation.

I am just a normal guy. I love passionate sex. – boom4534

Here the juxtaposition of the two clauses is interesting. We can read them to have a specific relationship where the latter elucidates the former. That is, the claim of loving passionate sex is covertly offered as evidence for the claim to being *normal*. But how does this work? boom4534's clauses act as an enthymeme, a rhetorical device commonly occurring but often unnoticed in discourse. The enthymeme might be argued to be a malformed syllogism, the classical logical structure of two premises and a conclusion. While logicians identify a number of patterns in the type and combinations of the premises of a syllogism, the following will suffice as an exemplar:

All men are mortals premise one or major premise
Socrates is a man premise two or minor premise
(therefore) Socrates is mortal conclusion

The enthymeme, however, is often described as 'deformed' in that one of the premises is missing. The suppressed premise, nevertheless, can be reconstructed by the audience. We can use boom4534's enthymeme to illustrate the recoverability of the 'lost' premise, bracketed here:

(normal guys love passionate sex) premise one
I love passionate sex premise two
(therefore) I am (just) a normal guy conclusion

In boom4534's case it is the broader ranged premised that has been elided, but it is easily reconstructed. As van Eemeren et al (1997, p.213) point out "[m]issing premises were drawn from the audience. They are usually only partially expressed, their logic being completed by the audience." I would suggest that it is often the 'major' premise that is missing because these appear to approach the level of truism, and are perhaps less likely to be refuted. If that is not the case with boom4534's missing premise, SDBen provides us with another example:

(normal guys work, own cars, homes and pets) premise one

I work, I own a home, a car, 2 cats, maybe a dog soon premise two
(therefore I am) (just) your normal guy conclusion

Here the major premise is missing. The idea that normal guys participate in these unremarkable activities and have mundane possessions has wider scope than the personal claim to these attributes and yet we find it straightforward to supply the missing premise based on our understanding of the relationship between the conclusion and the minor premise.

For the purpose of interpreting the strategic discourses around *normal* on this site, it is important to note that the profile owners are not just doing philosophy. Enthymemes are rhetorical devices rather than logical structures. Where logicians may use the syllogism to illuminate logical truths this is not the role of enthymemes on *NormalGay*. Enthymemes, as Cheney et al (2004) argue are not universally true, but are construed to be true or relevant to specific discourses or communities "depending on their conformity to the audience's existing beliefs and assumptions" (Cheney et al 2004, p.86, Heracleous 2006, p.1060). Analysing the enthymemes prevalent in a discourse community is a valuable tool for finding out the values of that community (cf Gill and Whedbee, 1997).

It seems then we can see the problem of *normal* in the assumptions covertly expressed in the hidden premise of the enthymemes. The covert enthymeme in the *NormalGay* profiles usually draws on features of hegemonic masculinity rather than features of masculinity associated with gay subculture:

When the question came up about whether I qualified for "normal" or not, I thought…hmmmm…do I have any Madonna CDs? Nope? Cher? Nope? Britney? Hell NO!....would rather have have my spleen removed with a rusty spoon:). I am just a good "normal" fun loving guy living in Amesbury ma, looking for similar guys who aren't defined by the gay lifestyle. – J72me

Here the profile produces an enthymeme where the hidden major premise asserts that normal guys do not admire female pop singers; the first two at least attributed iconic status in the gay world. This contrast is further underscored by the rejection of the gay lifestyle in the final line of the quote. This definition by negation is echoed in many of the enthymemes:

I'm normal but not average. I am just not into the labels and scenes – Alidorus

Hey guys, I am just a normal guy. Not into the gay bars, circiut parties, Will & Grace, drugs or how much your car cost. – squirrel

Hey all … normal guy here, not into the party thing… not into going into bars and getting pushed around all night and watch the same tired faces walking circles around the bar not talking to anyone – JoeyFLA

These profiles suppress a premise that defines normal in terms outside of the "scene", namely a gay social space whose features and behaviours, are assumed to be understood by both those in "the scene" and those who reject it as a space for presenting and socialising a gay identity. That this is the premise that needs to be reconstructed by the audience, who are expected to share the same set of meaning-making resources, is in itself interesting. This premise invokes features of hegemonic masculinity, the idealised version of a masculine gender performance that is naturalised and rendered invisible by its unremarkability.

You read the profile and now I'm just a normal guy looking for the same. I love camping, hiking rodoes, Braves Baseball in the summer, kicking back on the deck with buds and a beer shooting the shit. – TNcowboy

*Just a truly normal guy into hanging out, movies, cars, music, jocks, keeping fit, outdoors, etc. What I'm NOT into is all of the gay drama and bullsh*t* – JockDude

I like to think I'm pretty normal. heheh. I'm not really into any of the "scenes" – Fizgig

I'm your everyday normal guy. I'm definitely not into the scene – PandaBear

Few men produce enthymemes where the suppressed major premise does in fact highlight activities and identity features associated with gay men with a positive social evaluation. In these few profiles, these premise index behaviours and assumptions unremarkable and therefore assumed to be shared *within* a gay social network or social space.

I am just a normal guy, laid back down to earth. I like to check out other hot men on the net, in the clubs, on the streets, or where ever the hot men are. – RayAL29

I am a normal guy. I love to TRAVEL around the world with gay friends. – colt68

In both these examples the suppressed premise suggests that socialising in gay spaces with other gay men is what allows them to claim *normal* as an identity characteristic. While far fewer in number, these profile creators understand the social network/dating site and its population in exactly the same way as those members whose missing premise reveal their contrasting view of "the scene". Both subgroups are assuming that their readers share the same worldview and therefore need not spell out their position as to how normal relates to this social world.

Imagining NormalGay

The implications of the shared strategy to deploy non-matching evaluations of normal and its meaning are twofold. Firstly, we might be able to understand two different but related ways that the members of *NormalGay* are conceptualising the relationship between their "real world" social lives, and this online social networks. Secondly and perhaps more importantly, this same strategy-different viewpoint issue points to fundamentally different assumptions about the online community/dating site they have joined.

Taking up the first issue, the enthymemes reveal that those who reject the gay community or at least the prevailing construction of a gay identity are using the site as an alternative to "the scene". The online connections made on *NormalGay* represent opportunities to seek both friends and partners for offline activities that they understand to be outside the sphere of "the scene". For those who evaluate their activities in "real life" gay social networks might be using the site in a more additive way, enhancing opportunities to interact with "scene"-friendly identities. Online friendships and relationships, for this cohort, then, might be taken offline and into real world "scene" contexts and activities. For the members who take *normal* in this context to mean normal in gay social spaces *normal* means a constellation of features of male identity performances which may or may not overlap with those found in heterosexual populations. By way of contrast, those that evaluate (perhaps stereotypical) "scene"-orientated gay identities less positively, define *normal* outside of "the scene" and index features of hegemonic masculine identity features, most notably, sports, outdoor activities, and hanging out.

This analysis leads to the second point. Assuming a shared worldview can be deployed to discover the message that enthymeme has hidden underscores that profile owners are imagining the communities they belong to. Here I mean imagining in the sense of Anderson's (1991) concept of the imagined community. All non localised groups are imagined. Anderson argues "the members […] will never know most of their fellow-members, meet them, or even hear of them, yet in the minds of each lives the image of their communion" (1991, p.5). This image he refers to, we might believe, is the set of beliefs and assumptions the member imagines he shares with his fellow "citizens" of *NormalGay.*

For many of the profile owners, this just may be the case. They might be assuming that other members of this dating site/social network share their attitude towards what constitutes a normal masculinity. We would do well, though, to recall that self-positioning and impression management is strategic. The dominant definition of *normal* that is taken up by profile writers is that which approximates the hegemonic ideal. Given that this masculinity in its local cultural formulation is highly prized and is powerful within that society it is not surprising that profile writers on this dating site seek to foreground hegemonic features within their own identity. Again, it must be reiterated, that this research is not interested in questions of fraud and misrepresentation. We have no way of knowing whether members who devalue "scene"-orientated identities never participate in gay community activities or events and we warn against assuming that such members are also closeted. Rather, the point is that there is value in taking up this rendition of *normal* on the site as a strategy of self-presentation. Seeking to focus on masculine traits deemed attractive would seem a sensible approach to impression management on a site devoted to relationships and sexual encounters.

That is not to say that profile writers who produce hegemonic enthymemes on *NormalGay* are not imagining this community. Like their counterparts who imagined it to be an online extension to gay social spaces in the "real world", these men simply imagined the dating site to share the same set of assumptions about masculine identities and what makes them attractive as the "real word" beyond "the scene". While contesting the meaning of *normal* on *NormalGay,* they are not contesting heteronormative views of gender and masculine identity. They are in their strategic referencing of hegemonic masculinity abiding by and reproducing the privilege afforded to that form of masculinity above other styles of masculine performance and all performances of feminine identity. This phenomenon has been labelled homonormativity by Lisa Duggan, who defines it as…

…a politics that does not contest the dominant heteronormative assumptions and institutions but upholds and sustains them while promising the possibility of a demobilized gay constituency and a privatized depoliticized gay culture anchored in domesticity and consumption. (2002, p.179)

A more personal understanding of the agenda of homonormativity can be found in the profiles such as that below.

normal guy next door, wanting to know where the other guys "like me" are............not into "the lifestyle", partying, drugs, etc. want to meet a nice guy that can eat a burger, drink a beer and throw a ball............and if and when it's meant to be, put up the white picket fence, get a pair of puppies and dig in the yard on the weekends. Why does settling down and being monogamous mean "settling" to most guys? – Cleancutbutwild

The connections between homonormativity, the discursive deployment of *normal* and hegemonic masculinity reveal much about the possibilities of imagining community on this dating site. Online social networks require these acts of imagination and members imagine their engagement in ways that resemble offline understandings of identity. It is the different "real world" perspectives that create differences in the meaning of *normal*.

CONCLUSION

Online dating sites have features of social networks, unlike their forebear, the lonely heart print advertisement. In communicating their identity for a particular online audience profile writers need to imagine the community they belong to. What they have imagined becomes available in the case of *NormalGay* through investigating profile owners' understanding of the meaning of *normal.* The dominant understanding of masculinity in the "real world" of the profile owners is reproduced online in the profiles through interpreting *normal* as engaging with heteronormative features of masculine identity as opposed to an interpretation that is embedded in a gay social world. The means by which this interpretation is expressed and taken up as a position in the dating profiles can be both overt but can also be expressed via the use of enthymemes. The fact that the hidden premise contains the beliefs about masculinity is of importance because it is assumed by the profile writers to be accessible to the audience precisely because of a shared world view.

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KEY TERMS AND DEFINITIONS

Cotext: versus *Context* – In the analysis of texts, cotext refers to linguistic material in the surrounding text. Context refers to information outside of the text, available to a reader through understanding of genre, situation, and world knowledge. In the structure of the enthymeme, for example, one premise is part of the cotext of a conclusion, while the suppressed premise is not in the text, but available in the context.

Enthymeme: An enthymeme is a discursive or rhetorical strategy which resembles the three part logical form known as the syllogism. The difference is the suppression or omission of one of the premises upon which the conclusion is built. This premise however can be reconstructed from the discourse by the audience

Hegemonic Masculinity: The dominant masculine ideal of a given culture, a set of identity features which must include heterosexuality, and the dominant ethnicity of a particular cultural setting. The hegemonic nature of this ideal implies that the features of this masculine identity and the power it wields go uncontested by those who are dominated and devalued by it.

Heteronormativity: The set of discourses and behaviours that validate the dominance of heterosexuality, and the privileging of masculinity.

Homonormativity: A subscription by gay identities to the dominant discourse of gender and sexuality, reproducing social behaviours, norms and beliefs of the heteronormativity particularly as a strategy that hopes to achieve the rights and responsibilities bestowed upon heterosexual identities; essentially the discourse argues that gay identities are no different to straight identities excepting the target of desire.

Positioning Theory: A method of analysis developed in psychology that examines discourse, usually oral interaction to find ways of understanding how identities are produced and performed for that interaction. It seeks to understand the roles interactants attribute to themselves and others, and how they react to the roles they are put in. The positioning of the self and the positioning of others can be revealed through the use of language – through word choice, metaphor and rhetorical strategy.

Chapter 11
The Dynamics of Language Mixing in Nigerian Digital Communication

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ABSTRACT

This chapter examines language mixing in two text-based asynchronous modes – internet forums and text messages. While the latter is limited in space, thereby encouraging the use of stylistic short forms, the former presents the participant with unlimited space for expression. This major difference affects the extent to which language mixing is practiced in the two forms of communication. Language mixing in text messages is constrained mainly by cultural factors - greetings and prayers form the bulk of indigenous language expressions embedded in English, the matrix language. Language play is another factor that motivates people to mix languages in text messages. In internet forums, language mixing manifests as a result of the apparent mutual linguistic influence that English and the Nigerian languages have on each other. Conscious and deliberate language mixing reflects most prominently the need by participants for identity construction in their discourse. Features of Nigerianisms coupled with language mixing gives the communication in both SMS and internet forum the distinct Nigerian flavor.

INTRODUCTION

One of the strongest claims of sociolinguistics and contact linguistics is that languages don't exist in isolation. They are used by speech communities whose members interact with one another as well as with members of other speech communities. A reduction in the space between two languages often results in language contact, which may yield several outcomes, such as borrowing, shift, interference and code-switching. Thomason and Kaufman (1988) observe that the more intensive the contacts between two languages, the greater the possibility of contact-induced language changes. This inevitably leads to bilingualism (Appel and Muysken, 2006). English is one of the most dispersed languages in the world having spread to places far away from its source mainly through colonialism and globalization. It

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retention in the linguistically heterogeneous former colonies as their official language has resulted in the emergence of several localized varieties of the language across the globe, especially in Africa, Asia and The Caribbean's. Most of these varieties are typically characterized by features of borrowing and code-switching. The phenomenon of language mixing has earlier been studied as it manifest in oral forms, typically conversation, but much later in written literary forms. In recent times, especially from the late 1990s, language mixing has become a prominent phenomenon of digital writing in internet forums, chats, emails, instant messages and text messages. Some scholars prefer to discuss the whole idea of alternation of two or more linguistic varieties languages under two terms - code-switching and code-mixing. However, for the purpose of this study, we are not going be engaged in all the complex debates on terminologies, therefore a neutral term language mixing is chosen, but used in a similar manner code-switching and code-mixing are generally used in literature on contact linguistics and bilingualism. In this chapter we shall examine the dynamics of language mixing in two popularly used digital media by Nigerians – discussion forums and text messages. A pertinent question that will be answered in this chapter is; how is language mixing in discussion forums different from text messages?

BACKGROUND

The study of alternate use of two or more languages in conversation has been the focus of scholars from different linguistic related fields like sociolinguistics, psycholinguistics, philosophy, anthropology and so forth. Code-switching (CS)/code-mixing (CM) and borrowing, which are major results of language contact, have been the subject of debate among researchers on Bilingualism and Contact Linguistics. While some scholars explicitly differentiate between CS and CM (Liu, 2006), others concentrate on the boundary between code switched elements and lexically borrowed ones? (Poplack (1980; Boztepe, 2003).

CM is generally seen as all cases where lexical items and grammatical features of two or more languages appear in one sentence, while CM is associated with the alternating of different languages or varieties of the same language in a single speech event (Muysken, 2000). There are two distinct but related approaches to the study of CS – Sociolinguistic and Structural. The sociolinguistic approach views CS as a discourse phenomenon and examines such issues as the discourse functions of CS and how it is used to create social meaning. The major concern of the sociolinguistic approach is the question: Why do bilinguals switch languages? (Myers-Scotton, 1993). The structural approach seeks to prove that CS is not just purely an idiosyncratic linguistic behaviour, but rather rule-governed. This approach focuses on the formulation of the syntactic constraints on where switching can occur within the sentence.

Prior to the technology age, the popular use of language in bilingual communities was generally restricted to the traditional contexts of speech and most literature on language mixing focus attention bilingual conversations. However, over the years, the study of language mixing has been extended to several other domains of language use, such literary writings (Hess, 1996), music (Benthahila & Davies, 2002), advertising (Luna, Lerman & Peracchio, 2005) etc. In the recent times, especially from the mid-1990s, Computer-mediated Discourse (CMD) has presented an additional domain for language mixing. This medium combines the features of the 'language of distance' (writing) and 'the language of proximity' (speech) (Deuber & Hinrichs, 2007). Herring (2001) also observes that despite that the process of language use in CMD resembles writing (messages are typed on a computer keyboard and read as text on a computer screen), they also have some features of spoken discourse. As such, since CMD cannot be considered as either of these media, it is a distinct medium subject to its own constraints and potentialities. So, many CMD scholars emphasize the effect of the electronic medium on the kind of discourse produced. One striking feature of CMD is that it allows multiple participants to communicate simultaneously in ways that are difficult if not impossible to achieve in other media (Herring 1999).

The increasing participation of users of non-native varieties and New Englishes in communication on the Web has attracted the interest of some scholars in recent times. Some of these studies have focused on the use of English-based Pidgins and Creoles in CMC (Hinrichs, 2006; Deuber and Hinrichs, 2007). Hinrichs, drawing on corpora from emails and postings on internet forums shows how Jamaican users of the Internet engage in code and style switching between Patois and English in a highly planned and conscious performance. Deuber and Hinrichs (2007) did a comparative study of two English-derived languages: Nigerian Pidgin and Jamaican Creole. The study reveals the need to standardize the orthographic systems of the two varieties and suggests state-driven policy initiative in order to accomplish the goal. Siebenhaar (2006) examines CS in Swiss-German Internet Relay Chat and the findings show that code-switches occur when chatters join another conversational thread, resulting in addressee specifying code-switches. Also, code-switching takes place in order to distinguish different phases of an interaction, typically greetings. Cotter (2003) A few other studies have examined CS in text messages (Al-Khatib, 2008; Taiwo, 2009; Lexander, 2009). These three studies agree that code switching in SMS is a communicative strategy for facilitating and consolidating cultural identity of the users.

The Linguistic Landscape in Nigeria

Nigeria is one of the countries with extreme linguistic diversity in Africa. It is a multilingual nation of about 140 million people. Ethnologue, a language database online puts the number of indigenous languages in Nigeria at 521. According to Awonusi (2007), scholars have attempted to classify the languages in Nigeria using different indices, such as population of speakers spread, constitutional legitimacy, and prestige (Williamson, 1983; Emenanjo, 1995). The general classification reveals that Nigeria has three major languages: Hausa, Igbo and Yoruba, also recognized constitutionally as regional languages because they are spoken by majority of the people in the northern, eastern and western parts of the country respectively. They are also constitutionally recognized as national languages. There are also nine other languages which have about a million speakers, *ie*, Edo, Efik (Ibibio), Fulfulde, Idoma, Igala, Ijo, Kanuri, Nupe, and Tiv; and the minority languages numbering over four hundred. In addition to these indigenous languages, there are the two large exogenous ones—English and Arabic. There is also the Nigerian Pidgin (henceforth NP), which initially serves as lingua franca in coastal towns and in big cities, but now a major lingua franca among Nigerians, especially the young people. NP is gradually taking over the function of English as it has become the major language used by government agencies for their advertisements. It is also the major language for the developing hip-hop culture in the country (Babalola & Taiwo, 2009).

Like most former British colonies, English is one of the greatest legacies bequeathed to the people of Nigeria at the end of colonialism. The language occupies such the important position of unifying the linguistically diversified nation and also serving as the link for the nation to the external world. Throwing more light into the function of English in Nigeria, Goke-Pariola (1987: 128) observes:

Given its range of functions, the English language in Nigeria cannot be anything but an institutionalized, as opposed to a performance, variety…tremendous linguistic and socio-cultural pressures are brought to bear upon the language. The English language has to be used to express the people's culture, their daily experiences.

Speakers may also continue to switch back and forth between their mother tongues and English. Consequently, there is both conscious and unconscious experimentation with English, that is, attempts at its 'nativization'.

Several scholars who have examined the study of CS in Nigerian discourse approached it from the sociolinguistic perspective, examining the phenomenon in Yoruba-English bilinguals (Amuda, 1986; Ayeomoni, 2006; Lamidi, 2004); in urban Nigerian Arabs' speech (Owens, 2005); in Nigerian novels (O'Mole, 1987; Bamiro, 2006); in Nigerian hip-hop music (Omoniyi, 2006; Babalola and Taiwo, 2009) and so forth. The aims of these studies were to establish the reasons why bilinguals in Nigeria code-switch and the kinds of code-switching present in their conversations.

LANGUAGE MIXING IN NIGERIAN ELECTRONIC WRITING

The history of electronic writing in Nigeria is not a long one. Nigerians did not start to get actively involved in online activities until the early 1990s when a group of Nigerians in the United States started the first Nigerian online network called *Naijanet,* which was a forum dedicated to news from Nigeria and discussions about social and political issues facing Nigerians both "at home" and abroad (Bastian, 1999). Soon after that, activities of the military during that period acted as a catalyst to the migration efforts of Nigerians, who started using the electronic media facilities like newsgroups, usernets and websites as repositories of anti-military venom.

In recent times, communication online has been spreading very fast in Nigeria, especially as many people now have the opportunity to directly access Internet facilities in their homes through their WAP-enabled mobile phones, smart phones and personal computers and laptops using their phones as a modem. There are now several websites with internet forums organized by Nigerians with the aim of discussing Nigerian issues. Some of the popular ones are:

- *Nairaland*(http://www.nairaland.com/)
- *Nigerian Village Square* (http://www.nigeriavillagesquare.com/),
- *Motherland Nigeria* (http://www.motherlandnigeria.com/)
- *Sahara Reporters* (http://www.saharareporters.com)

Another popular digital means of communication in Nigeria is the mobile phone. The introduction of Global System for Mobile Telecommunication (GSM) into Nigeria about six years after the technology went public is often referred to as the "GSM Revolution" in the country. Since it was introduced to Nigeria in 2001, mobile phone has become a powerful tool for communicating across the country among both the young and the old people. While most of the older Nigerians use mobile phones for voice communication, the young people have adopted the use of SMS as their major way of socializing and maintaining real-time relationship among themselves (Taiwo, 2009a). In addition to these two digital modes, Nigerians communicate using several other digital media, such as e-mail, chats, instant message, and so forth. Language mixing is also prominent in these genres, but for the purpose of this chapter, my concentration will be on internet forum and text message.

One major feature of language use in digital communication by Nigerians is language mixing. The heterogeneous sociolinguistic landscape of the country encourages this practice. English is the predominant language of digital written communication in the country. It also remains the matrix language in the mixed expressions. Oftentimes, users flavor their communication with switches from English to any of the three major languages and NP. Nigerians who participate in online communication are well educated people, who are capable of sustaining meaningful discourse in English. Their code-switching is therefore a conscious choice geared towards reflecting their desire for identity with some particular language varieties. One major feature of language mixing that can be identified in online forums is the mixing of NP and English. Some extracts below exemplify this. The NP expressions are emboldened and the glossing is put immediately after the extract.

T1: Share Your Helmet Experiences Here! Whether Good Bad Or Ugly! « on: April 27, 2009, 08:02 AM » http://www.nairaland.com/nigeria/topic-266220.0.html*Since the* introduction of the Helmet *since the beginning of this year it has been welcome with mixed reactions. This phenomenon is a standard requirement to ride a motor bike in developed countries.But as e be say e enter Naija, we carry our own social wahala follow.* (But as it was introduced into Nigeria, our social problems hinder its working)

T2. How to shut down Nigeria – lessons form MASSOB « on: December 06, 2005, 01:28 PM » http://www.nairaland.com/nigeria/topic-3591.0.html*This is SELF DETERNINATION. It is by this principle that Nigeria and other Colonial States got their independence. Marriage in a "bad relationship" that has broken down irretrievably cannot be forced on the other party, no matter how weak Set them free to go their own way.Abi na by force* (is it by force?)

T3. Re: Phcn(nepa) To Go On Nation Wide Strike On Wednesday « #8 on: March 29, 2009, 09:33 AM » http://www.nairaland.com/nigeria/topic-254944.0.html*this nepa no dey shame sef,they have the gut to make noise about wage increment when Nigerians are complaining that they are being paid for doing nothing. I think the salaries should be deducted by 30%.* (NEPA workers are shameless)

The switch from English to NP is typically inter-sentential. NP elements come only as full sentences and not part of another English sentence. They are used to express strong opinions, typically attitudinal ones in order to underscore the feelings of the writer on the issue being discussed. Bastian's (1999) made a similar observation in her study of American-based Nigerians online. According to her, Nigerian online writers use Nigerian Pidgin forms of English and/or interspersed proverbs in Nigerian languages as a marker of their identity. To be able to participate fully in a Nigerian online community discussion, "a person should at least be able to read (and preferably write) in forms of English native to Nigeria" or what is generally known as the Nigerian English, which is the localized variety of English that Nigerians use as part of their quest for cultural expression and national identity (Adamo, 2007: 46).

There are also instances of use of a variety of expressions in the three major languages, which have become regular substrate of the NP. The list of these lexical items is inexhaustible and their usage depends, sometimes on the part of Nigeria a speaker comes from. Most of these lexical items occur as lone words in predominantly English constructions. Below are some extracts from some Nigerian internet forums.

T4*:*Re: Ex-deputy Governor Contests LG Councillorship. Nov 8, 2007. http://www.nigeriavillagesquare.com/forum/main-square/14436-ex-deputy-governor-contests-lg-councillorship.html*I appreciate your effort at fairness. Alas, as far as I am concerned, that fellow has tarnished his reputation. Yes, a Broken Clock is accurate twice a day, but why should any responsible person depend on such Broken Clock for* *update on the time? That is nothing more than a nice-sounding clichéo'jare.I say, take a time-out to peruse the character's recent history here and familiarize yourself with his expressed views before standing up for him.* (*Ojare* is a Yoruba expression used for emphasis and could mean 'please')

T5. Re: Protest In London Today Over Obasanjo's Lecture « #34 on: March 19, 2009, 09:03 AM » http://www.nairaland.com/nigeria/topic-249784.0.html*Chei!Obj, how i wish we can do the same here. Obasanjo suposed to be barred from public function,infact he should be put back to his fomer place, Prison.* (*Chei* is an Igbo exclamation indicating surprise. It could mean for instance 'my goodness!')

T6. Husband's (possible) Infidelity: why look for trouble? « on: June 23, 2005, 07:39 AM » http://www.nairaland.com/nigeria/topic-555.0.htm*In view of the fact that our society is polygamous in nature and the laws don't really favor divorced women that much, why look for trouble when you stand to lose the most, just love him as much as you can when he is back to his senses he would stop all that outside adventure. A Nigerian man would never abandon his marriage once there are children involved.Abiwhat do you people think, let's be practical and logical about this.* (*Abi* is a Yoruba question tag meaning is it? Don't you agree? Isn't that right?)

T7. Re: Supreme Thief Alams Gets An Overwhelming Welcome From His People « #39 on: September 05, 2007, 07:21 PM » http://www.nairaland.com/nigeria/topic-76200.0.html*Shame! Shame!! Shame!!! only foolish pple would give a big a hero-ice welcome, Haba! Naija instead of him to be banished from the face of the earth for impoverishing his pple d more, later they would start cryin of resource control when it's their pple that balantantly steal d monies allocated to them, It's ha disgrace! Shame on Alams! Shame on the pple who support him!* (*Haba* is an Hausa exclamation indicating surprise.It could mean for instance 'good grief!')

The nature of language mixing here also indicates that local language forms feature in language mixing in the context of expression of strong emotions. Two of the expressions (*chei* in T5 and *haba* in T7 are forms for expressing intense emotion, like surprise, annoyance or trouble in Igbo and Hausa respectively and the statements that follow these expressions further buttress the fact about the feelings of the writers. In a related study, the use of indigenous language expressions in online communication is also associated with flaming behavior. According to Taiwo (2009b), abusive expressions in indigenous languages are often chosen for face attack, conflict and impolite behavior, such as flaming online even in English threads.

One other interesting feature of language mixing in discussion forums is that as, part of their quest to identify with their local languages, participants sometimes start threads in these languages, but they always find it difficult to sustain such threads in the indigenous languages. They end up mixing the local language with English. In a few instances of such deliberate creation of indigenous language threads, the local language becomes the matrix language, while English becomes the embedded language, as in the examples below.

T8: Re: If You Can Speak Yoruba, Talk It In Here! « #128 on: February 09, 2009, 04:44 AM » http://www.nairaland.com/nigeria/topic-48547.0.html*Eni ti o ba le so yooba lorithreadiyi, mo mabanepermanently for life without appeal. (I will b*an whoever cannot use Yoruba on this thread for life without an appeal)

T9. Igbo Kwenu! kwezuo Nu! Join Us If You're Proud To Be An Igbo Guy/Lady « on: January 29, 2009, 02:37 PM » http://www.nairaland.com/nigeria/topic-225819.0.html*Nnam, naara itonakomputa.* (My brother let me give you a handshake over the computer)

T10. Re: YORUBA THREAD « Reply #62 on: April 14, 2008, 09:15:38 PM » http://www.nigerianbestforum.com/index.php?topic=594.30*Yoruba yen ti po ju fun mi o Ogbeni crown4me, e jo bo ya ki es-ummarise.* (That Yoruba is too complex for me Mr Crown4me, please summarize it for me)

T11. Igbo Kwenu! kwezuo Nu! Join Us If You're Proud To Be An Igbo Guy/Lady « on: January 29, 2009, 02:37 PM » http://www.nairaland.com/nigeria/topic-225819.0.html*Excuseonyere dibelated. Ihe anyi choro bupublic apology*. (The excuse is belated. We want public apology)

The inability of participants to conduct their discourse consistently in one language shows how dependent two or more languages can be on one another in intense language contact situations like Nigeria. The contact between English and the indigenous Nigerian languages has brought in a large number of English vocabulary and structure into them, to the extent that most of the young educated Nigerian users of English find it difficult to engage in discourse purely in the local languages without mixing them with English expressions. Many core lexical items in the local languages regularly feature in the Nigerian bilingual speech. Some of them have become so regular that they have been integrated syntactically, morphologically and phonologically into the different varieties of English spoken in Nigeria. For instance, the words *thread* and *computer* are phonologically and orthographically intgrated into the Yoruba and Igbo structures in T8 andT9. The form used, ie, *threadi* and *komputa* are adapted forms of the English words *thread* and *computer*. Likewise, T10 and T11 show instance of English-induced structures in Yoruba and Igbo. The expressions *summarise*, *belated* and *public apology* are made to conform to the syntactic rules of the two languages. It is also the case that English and the local languages are competing most times in the country for the same language domains, especially among the young educated people and their major way of resolving this contest is to make their usage a blend of these languages.

Language mixing manifest is also a marker of identity for Nigerian online users who are mostly young educated Nigerians, who choose to maximize the advantage of democratic nature of the cyberspace by playing with language. In addition, they are also conscious of the intense language contact in the country, which may even be compounded in online communication where there is potential for identity confusion. One way out for them may be to code-switch from time to time to any of the indigenous languages in order to reveal their identities if they would need to do so.

From the foregoing, it is clear that a switch to any Nigerian language in a forum conducted in English is clearly a deliberate and conscious act by the participants to signify identity with other participants. On the other hand, a switch to English in threads conducted in Nigerian languages is an indicator of either an imperfect mastery of the local languages or lack of appropriate expression for some English concepts in Nigerian languages. Though there is apparent mutual linguistic influence, the status of English and the spread of its influence in modern times through globalization and ICT have drastically affected the use of Nigerian languages in the public space. Efforts are being made to promote the use of Nigerian languages in the public domain, especially in the media and schools. These efforts have not yielded much result because of the obvious overbearing influence of English in these domains.

The nature of language mixing in text messages is different from what obtains in internet forums. Though the same principles of immediacy, distance and reduced social context cues operate, the context of text messaging reflects a closer social distance. People who communicate through text messages are usually familiar people in other contexts of language use, and even when there is no familiarity, there is no loss of individuality, because they can be identified through their mobile number. This is unlike what obtains in internet forum which typically involves a large group of participants some of whom feel insulated and anonymous, thereby likely to act upon impulses. This loss of individual identity online helps participants to cultivate deindividuation. The limitation of space in text message also plays a part in determining the extent of language mixing. Due to its social interactive nature, text messages are typically used to fulfill social bonding. Language mixing comes into play in the context of cultural expression, such as greetings, as in the following:

T11. *My sister,e ku ojo meta… I've tried calling many times – rings but not picked. Trust God you are fine. this is another number but u can reply to it.* (it's been quite a while)

T12. *Sister,e kale, I do believe u had a lovely wk-end. How's my bro & sons? We are fine too. I'm so grateful 4 ur luv.* (good evening)

T13. *Hie ku ipalemo se alafia ni omo oloku wa?Text me d color 4 d day. I will* come thr Lagos. God b w u. luv u. later. (Greetings for someone preparing for celebration, hope you are well, child of the deceased)

In the text messages the insertion of Yoruba expressions into the English text messages indicates the importance the Yoruba attach to greetings etiquette, which is one of their ways of elaborately articulating social responsibility. They have greetings for almost every conceivable occasion, situation and human relationship and the limitations of the technology of mobile phone will not discourage this cultural practice. This is different from the practice in English text messaging, which will generally leave out greetings for more important messages or make it brief, if used at all. Another instance is the use of prayers in indigenous languages, which are not always easy to translate into English without losing part of the meaning.

T14. *I am so grateful 4 ur luv.Alanu o ni won yin l'oruko Jesu.* (You will always find help in Jesus name)

T15. *Eyin mama o ni baje ö!Goda hall uphold the family thru this period*. (Mama's departure will bring blessings)

Insertion of address forms in indigenous languages into text messages is also a common feature. This is to indicate the tenor of the discourse. Most of the indigenous languages have expressions showing the relationship between the interlocutors, as can be seen in the texts below.

T16. *Ore,how are you? how is brotherly too? The Lord will give you fulfilled joy together. I called yesterday. Will call again by week-end. Have a nice day.* (friend)

T17. *Omo oloduncongratulations again & again. I just want 2 ask ao far wt d arrangements. Has mum come? (celebrant)*

T18. Egbon, I'm on my way to Ibadan with uncle M…. and others to buy some equipments for the church. We'll be back around 2pm. (older one)

The words *ore* and *egbon* are Yoruba expressions indicating the kind of relationship that exist between the people in the discourse. While the former is used to address a close friend, thereby indicating a relationship of equals, the latter is used to indicate distance in age. *Omo olodun* is used to address celebrants and it does not necessarily indicate any serious relationship between the users. Just like in internet forums, language mixing in text messages is used for identity and social relations.

Language mixing may also be indicative of language play in which users playfully juxtapose together English words and those of Nigerian languages in order to create some effects, such as amusement and entertainment. In such cases, forms created are not likely to be used outside the context of language play. Two examples of such language play are:

T19. *I am sending you the gift of unlimitedigbega, multiplealaafia, undilutedifokanbale, unendingayo,immeasurableidunnu.* (igbega – promotion; alafia – peace; ifokanbale – peace of mind; ayo – joy; idunnu – happiness)

T20. *You are a pricelessiyawo, invaluableomoluabi.* (iyawo – wife; omoluabi - a responsible person)

The pattern in the T19 and T20 is such that English modifying adjectives and Yoruba nouns are paired together in an unusual way. This is an aspect of creativity, which the context of text messaging favors. It is clear from the different patterns of language mixing presented that different factors motivate people to mix languages in digital communication. While in most cases, identity is the issue, we have also identified cultural expressions and creativity.

FUTURE RESEARCH DIRECTIONS

Language mixing in digital writing, especially in multilingual environments is an extension of the practice in face-to-face interactions. Nigeria is one of the developing countries with extreme multilingual setting. While the use of internet for communication is still limited to the few, mostly young, educated city dwellers, the use of mobile phone cuts across the different strata of the society. However, language mixing is more prominent on the Internet because the participants are presented with an unlimited space which encourages their elaborate use of language. This chapter has looked at the different motivations for language mixing in digital communication. The study limits its focus to two asynchronous contexts of language mixing – internet forum and text messages. The practice of language mixing is not limited to asynchronous communication contexts. It also occurs in text-based synchronous communication, such as Internet Relay Chat (IRC), instant messaging (IM), ICQ (I seek you) and even email, which is another asynchronous mode. Further research may examine language mixing in text-based synchronous communication and even draw a comparison in usage between asynchronous and synchronous communication.

CONCLUSION

This chapter examined the dynamics of language mixing in two text-based asynchronous communication modes – internet discussion boards and text messaging. Language mixing is a phenomenon associated with multilingual societies like Nigeria. The context of internet forums and SMS differ to a large extent in terms of the number of participants and social distance between them. While internet forum encourages deinviduation, the SMS mode emphasizes familiarity and social bonding. SMS limits users in term of number of characters they can use, while internet forum presents participants with unlimited access to space. This also translates into unlimited possibilities for expression. One thing that is common to the two text-based modes is that they present the context for creativity and language play. While English remains the major language of digital communication in Nigeria, conscious mixing of English with Nigerian languages is a prominent feature. Language mixing is motivated by different factors, most prominent being identity. The need for cultural expression like greetings and prayers motivates the infusion of Nigerian language expressions into English in text messages.

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KEY TERMS AND DEFINITIONS

Digital Communication: A system of communication that involves the transfer of information through electronic media that work the digital system.

Indigeneous Languages: Mother tongues of the indigenous people

Internet Forum: A web-based forum which is used for holding discussions. It allows people to post messages to a website where these messages can be read and commented on by other members of the community.

Language Mixing: The practice of alternating between two or more languages during an instance of language use.

Nigerian English: The indigenenized form of English used in Nigeria. It is characterized by the use of domesticated lexical items and syntactic structures.

Nigerian Pidgin: An English-based Pidigin used in Nigeria as a lingua franca.

SMS (Short Message Service): A service for sending short text messages to mobile phones.

Thread: A list of messages posted on a discussion forum. A thread contains an original message and responses to that message.

Chapter 12
Intertextuality and Constructing Islamic Identities Online

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ABSTRACT

This chapter explores, from a sociolinguistic perspective, the role that the Internet plays in the online discursive construction of the Islamic religious identity of an enlightener. It does so by examining chatroom conversations between a man with a disability from the Islamic Arabian country, Oman and individuals of diverse religious backgrounds and nationalities with whom he frequently chats. The chapter illustrates how an enlightener identity is constructed through juxtaposing two contrastive religious identities: a liberal identity (when interacting with other Muslims) and a far more traditional one (when interacting with non-Muslims). The findings of the study suggest that the Internet is helping transform many Islamic discourses from being "authoritative," i.e., unquestioned, to being "internally persuasive," i.e., open for debate (Bakhtin, 1981). The analysis also reveals how the Internet is offering new possibilities regarding the constitution of an Islamic identity while additionally posing increasingly poignant questions about the role of Islamic religious leaders in this digital age.

INTRODUCTION

In his anthropological analysis of new media technology use in Arabia, Anderson (1999) states that the Internet has caused changes in what it means to be an Arab. What the Internet has done in particular, Anderson explains, is that it gave its users (a) an unaccustomed measure of agency and self-authorization and (b) the freedom to sample alternative authoritative role models. This newfound freedom resulted in loosening boundaries between Arab youth and authoritative figures—especially religious figures, who traditionally control access to and interpretation of religious texts. New media technology also has accentuated diversity within the Arabic nation, especially religious diversity. Specifically, Eickelman (1989) has argued that even introducing cassette tapes to Arab countries in

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the 1980s created changes in how Arab Muslims practiced religion (as was the case in Oman): Cassette tapes made it possible to move sermons from being owned by few religious figures to belonging to the masses. This was an early step in creating a diversity of religious views, questioning religious authority, and distributing religious knowledge. Such steps, in turn, have led to the creation of self-authorized new interpreters of religious texts.

In this chapter, I conduct a sociolinguistic analysis of the discursive construction of the identity of one of these new types of interpreters in the context of chatroom discourse involving both Muslims and non-Muslims. This new religious identity is that of an "enlightener," whose sole mission is to elucidate the true essence of Islam to Muslims themselves. In my data, it is a 38-year-old quadriplegic man named Yahya from the Islamic Arab country Oman who creates this online interpreter identity. Yahya was a participant in a longitudinal ethnographic study I conducted from 2003 to 2006 to examine the relationship between technology and disability. Analyzing his online interactions over a lengthy period has enabled me to shed light on how several "local" identities can be used together and juxtaposed in an intertextual fashion to create a more complex one. In this chapter, I also provide qualitative documentation of the changes that Muslim religious texts and discourses have undergone as a result of the Internet. Since this is a qualitative sociolinguistic study, questions pertaining to its validity as a research method are addressed in the concluding remarks of this chapter.

The contributions of this study are manifold. From its conception, the field of computer-mediated communication (CMC) has been fraught with the question of how identities (personal or social) have been affected or changed by the Internet, given its supposed facilitation of identity play. Yet, we still do not always know specifically the nature of these transformations. One reason could be that the nature of identity itself is complex (Thurlow, Lengel, & Tomic, 2004). That is why identity is best examined not through quantitative analyses alone, as has been the custom in CMC, but also by qualitative means to capture its complicated essence. Thus, while there are many studies that look at the relationship between identity and the Internet, few provide a detailed analysis of the nature of this relation. In this chapter, I fill in this gap in CMC research by conducting a qualitative analysis of one of the changes the Internet is causing in the manifestation of the Muslim identity. This analysis is particularly relevant in this day and age when Muslims' identities are under constant scrutiny.

INTERTEXTUALITY AND IDENTITY

The term 'intertextuality' was first introduced in English by Kristeva (1967/1986) based on her interpretations of Bakhtin's (1981, 1986) notion of dialogicality. The basic idea of intertextuality is that all texts—oral or written—consist of numerous "intertextual weavings" of what Becker (1995) calls "prior texts" of different sorts (see e.g., Gordon, 2006, 2009; Tannen, 2007). This view of text as an amalgamation of multiple voices, transformations, and interventions stems from Bakhtin's realization that in using language, we are constantly mixing our own words with those of others. That is, while texts (in theory) stand alone, in reality, they tie back to previous usages of language and simultaneously anticipate future usages. This traditional definition of intertextuality, however, which limits the idea of dialogicality to texts alone, blinds us to the fact that dialogicality also involves actions. Scollon (2007) thus suggests broadening the concept of intertextuality to include repeating prior actions in addition to texts.[1]

Two terms related to the concept of intertextuality are Bakhtin's (1981) authoritative discourse and internally persuasive discourse. According to Bakhtin, authoritative discourse is the word of ancestors that comes from the past and which, for the most part, stands unquestioned. Examples of authoritative discourse are religious texts such as the Qur'an, the holy book of Islam, and Hadith, prophet Mohammed's sayings. While Bakhtin again limits the idea of authoritative discourse to texts, I suggest in this chapter that the concept is usefully broadened to include religious practices such as praying diligently five times a day at certain specific times and fasting for 30 consecutive days during the holy month of Ramadan (both are unquestioned practices for Muslims). Internally persuasive discourse, on the other hand, is the type of discourse (or action) that is open to engagements with other points of view. It can be negotiated because, in Bakhtin's words (p. 14), "it is half ours, half someone else's; thus, it does not stand in isolation or static condition." Examples from the Islamic context involve the practice of cutting off the hands of thieves (a very controversial issue within Islamic circles).

Intertextual reshaping of texts has a wide variety of interactional functions, including building shared communities (Becker, 1994), accomplishing tasks (Tovares, 2005), creating involvement (Tannen, 2007), and constructing subtle layers of meaning (Gordon, 2009). Intertextuality, moreover, has been analytically linked to identity construction. Hamilton (1996), in her *intra-* and *inter*textual analysis of her interactions with an Alzheimer's patient over a six-month period, illustrates that linking disparate conversations intertextually serves to show how referring to prior texts works as a means to create not only emergent identities but also stable identities of patient and caregiver. The necessity of doing intertextual analysis to examine identity construction also is illustrated by Schiffrin (2000), who demonstrates, through comparing the intertextual narratives of one Holocaust survivor, how the narrator's similar linguistic choices in the different narratives construct a particular identity for her mother. More recently, Gordon (2006) combines intertextuality and prior texts with Goffman's (1981) concept of alignment to examine intertextual repetition of words and strings of words in family interactions; she additionally shows how "the same" linguistic material could be used to create diverse identities for different audiences.

BACKGROUND, DATA, AND METHODOLOGY

The data for this chapter are taken from a three-year longitudinal ethnographic case study conducted from 2003 to 2006 (the specific extracts are taken from 2005-2006). The focus of the study was the computer related practices of a quadriplegic 38-year-old man, Yahya, who lives in Oman, where people with disabilities largely are marginalized. Yahya's quadriplegia is the result of a car accident he experienced in 1988. I have been mainly interested in the diverse (especially technological) means through which Yahya attempts to combat orthodox views of disability in Oman. To that end, I have analyzed both Yahya's face-to-face interactions with his caregivers and his computer-mediated communications of various types. For instance, in Al Zidjaly (2005, 2007) I demonstrated how Yahya uses Microsoft PowerPoint software to create animated music videos through which he critiques and challenges societal misconceptions about his condition as a person with a disability. In this chapter, I turn to how using intertextual repetition in online chatroom discourse has enabled Yahya to create a complex religious identity. I look not only at the intertextual repetition of words and phrases, but also at intertextual recontextualizations of events and actions.

The Internet has been accredited with providing a new arena for identity construction (Anderson, 1999; Eickelman & Anderson, 2003; Thunder et al., 2004). By masking physical disabilities and enabling role play, escapism, and self-expression, the Internet has further been argued to alleviate many social ailments that people with disabilities, in particular, deal with in face-to-face interactions (Ford, 2003). My own work demonstrates how Yahya's computer-related practices not only enable him to widen his social world but also to extend the technology in creative ways that surpass the goals of the technology's original designs (Al Zidjaly 2005, 2007; see also Brown & Duguid, 2002), thus, providing him a means to ignite social change.

Yahya first started participating in political chatrooms on Yahoo in 2001 with the goal of joining the global community's efforts to understand the tragic events of September 11th. In 2003, Yahya switched to participating primarily in religious chatrooms. The main precursor for this change was his coming across a verse from the Qur'an (*Wa rattilil Qur'ana tarteela* [chapter 73, verse: 4]), which is widely interpreted as "recite the Qur'an in a musical manner." Because Yahya did not understand the importance of reciting the words of God musically, he checked various resources until he came across an interpretation that made sense to him, which was "do not take the verses of the Qur'an out of context." The verb *rattil* in the original verse is an archaic Arabic word that means *contextualize* instead of *recite.* Yahya interpreted this request to contextualize the words of the holy book as a call to think about what one reads. Although this interpretation of contextualizing the holy book is not widely known since it does not exist in *Tafseer Al Jalali*, the main interpreting book for the Qur'an, Yahya instantly connected to this meaning.

Finding the alternate interpretation suggested to Yahya that God himself has asked us to examine what we read in the Qur'an rather than simply to depend on the meanings provided by religious scholars (as is the case in most Islamic communities). Thus began Yahya's journey to first study the Qur'an and then to study other religious texts. As he learned more, his perspectives shifted from traditional Islamic views to somewhat liberal ones. Now, he defines himself as an enlightener, whose mission is to enlighten insiders about the true essence of Islam, while defending the concept of Islam to outsiders. The role of an enlightener is different than a traditional messenger of God, whose role is to make sure that insiders follow religious rules to the fullest and to explain Islam to outsiders in an effort to convert them. Enlighteners also differ from liberals, who are open in their views with insiders and welcome the involvement of outsiders. In a playback session during my data collection, Yahya explained that his role as an enlightener was to reawaken Muslims by making them think for themselves rather than depending on ready-made interpretations of others in an effort not let Islam be hijacked by both the West on the outside and Mullahs on the inside.

CONSTRUCTING RELIGIOUS IDENTITIES ONLINE

I now turn to answer the question of how an enlightener's religious identity is constructed online. My analysis shows that the enlightener identity is discursively realized by simultaneously constructing two somewhat contrastive identities—the traditional and the liberal—using mainly the linguistic strategy of questioning. Questioning, according to Tannen (1994), has several communicative effects, ranging from creating solidarity by reinforcing connection to creating distance by acting as a power claiming maneuver that challenges one's stance or beliefs. I demonstrate how Yahya uses questions in his chatroom discourse with other Muslims to challenge Islamic orthodox views, especially regarding topics they have already taken for granted (referred to as authoritative discourse). Additionally, I illustrate how Yahya uses logical questions to turn the table on non-Muslims and reveal the fallacy of their positions. Thus, with outsiders, he defends rather than challenges Islamic discourses and actions. In short, he enacts a liberal discourse with insiders and a traditional discourse with outsiders. It is juxtaposing these two diverse identities, which is made possible by examining his interactions over a long period of time, that illustrates how he constructs his identity of an enlightener.

The following three sections illustrate Yahya's identity creation in the context of his interactions regarding different authoritative Islamic discourses and practices that he turns into internally persuasive discourses. In each section, I discuss Yahya's stance about the topic first toward insiders (other Muslims) and then toward outsiders (non-Muslims).

Authoritative Discourse 1: Muslims are Muslims (Sunnis versus Shiahs)

The first example analyzed in this chapter draws upon the differences between Sunnis and Shiahs, the two major denominations of Islam. The precursor of the split between Sunnis and Shiahs is the conflict that occurred following the death of prophet Mohammed in 632 A.D., leading to a dispute over who would succeed him as leader of the expanding Islamic community. Because the conflict was never resolved, Sunni-Shiah relations over the years have been marked by "minor" but indiscussable differences in religious beliefs, practices, traditions, and customs. For instance, one of the most sacred authoritative discourses in Islam, which distinguishes it from Catholicism, is that there is no mediation or intermediacy between God and the worshipers (whether male or female). Sunnis believe in this authoritative discourse wholeheartedly. As a result, they pray only to God—not even to the prophet Mohammed. Shiahs, on the other hand, pray to Ali, the prophet's cousin and brother-in-law, whom the Shiahs believe should have been the first successor of Mohammed (Ali ended up being the third successor). In this first example of Yahya's discourse with insiders, he constructs himself as liberal by calling attention to this difference between Sunnis and Shiahs though he knows that Muslims do not like discussing internal religious differences.

Note that while the primary language of these chats, which take place on Yahoo, is English, speakers from time to time draw upon or use words from their local languages. In the first excerpt, mba_student_suman, for instance, starts his contribution with the Islamic greeting *Salam* (which means "peace") and follows it with a prayer in Urdu (*YA ALI MADAD*, which means "Ali, please help me"). The word *madad* is Urdu for help. The discussants in this example are all Muslims, as they had established their identity as Muslims in previous chats. In this excerpt, Yahya takes on the online id of zeet_zeet. Zeet_zeet, Sakeena_022, and Zenith__ali are all Sunnis (also previously established), while mba_student_suman appears to be Shiah, judging from his contribution:

Example 1a: Discourse with Insiders

1. mba_student_suman: *salam YA ALI MADAD*
2. zeet_zeet: ya Allah madad...Ali won't do madad, he is dead. How can a dead person help you?????? Think man!!!
3. Zenith__ali: stop it zeet. Don't start
4. zeet_zeet: I am not starting anything…I want them to wake up
5. Zenith__ali: no you want Shitte and sunnis to fight .. like always
6. zeet_zeet: I want them Shitte to wake up u idiot
7. Sakeena_022: muslims are muslims…… no fights plzzzzzzzzzzzzzz

mba_student_suman's request for assistance from Ali (line 1) is an intertextual reference to the Shiah's belief of the holiness of Ali. Yahya responds to this reference, first of all, by correcting mba_student_suman through replacing his contribution with the "correct" form in which God (Allah) should be asked for help, not Ali (*ya Allah madad*). Second, Yahya reminds him that Ali is only human (*he is dead*). Finally, Yahya poses a rhetorical question (*how can a dead person help you?*). Together, these responses work to suggest that the Shiah belief or practice of praying to a man (Ali) rather than God (Allah) is ridiculous, implying that logic calls them to abandon this practice. Thus, his contributions create a non-binding function between Muslims, splitting them apart rather than uniting them. Then, Yahya requests mba_student_suman to think about what he has just said.

By ridiculing a Shiah belief, Yahya turns a major Islamic authoritative discourse that all Muslims are one into an internally persuasive discourse that is open to debate. This leads some chat participants to accuse Yahya of being a troublemaking liberal, for he is seen as trying to create or widen the gap between Shiahs and Sunnis, something that a "good" Muslim is not supposed to do. When it looks like a fight is about to ensue, Sakeena_022, a Pakistani chatroom regular, reminds them of the Islamic authoritative discourse that everybody is the same—"Muslims are Muslims"—and so they should stop fighting because there is no place for differences. Although the participants do not stop arguing, Sakeena's utterance serves as prior text in a later chat in which Yahya, rather than constructing himself as a liberal who questions certain Islamic practices, creates a more traditional identity.

When the difference between the Shiah and Sunni sects is drawn upon again, this time initiated by a non-Muslim in a different chat, Yahya creates a somewhat different identity that departs from liberalism and adopts a more religiously diplomatic stance whereby he defends the whole concept of being a Muslim rather than accentuating the differences among them. That is, he creates a united front by not admitting differences to outsiders and closing authoritative discourses to analysis. In doing so, he creates a traditional identity. This discussion occurs between mercyme22222 (mercy) who previously established herself as Christian, and zeet_zeet and takes place several hours after the first discussion. "Mulla," who is mentioned in the text and who is a chatroom regular, is an orthodox Muslim who strongly believes that a woman's place is at home with family. (Note that the word *Mulla* means religious scholar).

Example 1b: Discourse with Outsiders

1. mercyme22222: ZEET. I AM PUZZLED WHY THERE IS SO MUCH CONFLICT WITH MUSLIMS.. CAN YOU EXPLAIN?
2. zeet_zeet: mercy.. I'm not a mulla... sorry
3. mercyme22222: I KNOW ABOUT ALI AND SUNNI SHIA BUT WHAT IS THE UNDERLYING PROBLEM? CONTROL
4. zeet_zeet: mercy.. ask mulla
5. mercyme22222: HE WANTS ME TO GET MARRIED AND WONT ANSWER QUESTIONS
6. zeet_zeet: muslims are muslims .. no underlying problems

In this example, Yahya first refuses to answer an outsider's question regarding the underlying problem between the Shiahs and Sunnis. He, in fact, advises mercy to turn to Mulla, a traditionalist chatroom participant. Then, when the non-Muslim insists on her question, Yahya dismisses her by intertextually repeating Sakeena's earlier comment that Muslims are Muslims; hence, there is no place for differences. Such an intertextual reference helps establish a united front by keeping internal conflicts within Islamic community as authoritative discourses. This serves a binding function among Muslim participants and also dismisses (and, thus, ends) mercy's line of questioning. This response is in contradiction with Yahya's earlier positioning with Muslims. In a playback session I conducted during the ethnographic study, Yahya explained that by not engaging in a discussion with a non-Muslim about the differences between Shiahs and Sunnis, he acts as a protector of Islam by keeping Islamic authoritative discourses intact. He also acts as a religious diplomat and does not want the outsiders to interfere in the internal business of Muslims (which represents a traditional point of view). Thus, in his discourses with insiders, Yahya uses the strategy of push (accentuating differences among Muslims and turning authoritative discourses into internally persuasive discourses) and uses pull (not admitting to differences with outsiders by preserving authoritative discourses) in interactions with outsiders.

Authoritative Discourse 2: Respect of Prophets

In this section, I want to contrast Yahya's stance toward the 2005 incident of the Danish cartoons of prophet Mohammed in chats with insiders and outsiders to illustrate further how Yahya constructs the identity of an enlightener by juxtaposing two different local identities regarding similar topics. In September of 2005, a Danish newspaper (*Jyllands-Posten)* published some extremely controversial—and, for many Muslims, extremely offensive—cartoons of prophet Mohammed. Many Muslims found the Danish action tasteless and insulting, especially since they go against a fundamental authoritative discourse in Islam that forbids the depiction of all prophets. As a result, many Muslims around the globe responded violently and non-violently against this disrespectful action. They viewed it as an insult justified in the name of freedom of speech. In the first example, I demonstrate Yahya's position regarding the cartoons with insiders. Only Yahya's contributions are shown here due to space considerations:

Example 2a: Discourse with Insiders

1. zeet_zeet: What are you Muslims gaining from such rampage, riots, burning up cars and embassies?
2. zeet_zeet: Muslims, you are making the same mistake that you made with that Salman Rushdi a few years back.
3. zeet_zeet: What have you achieved from death threats? nothing; you just made him a best seller. The book is still in stores btw, many people are still reading it because u made it famous.
4. zeet_zeet: Please Muslims think of this rampage or whatever u call it from a different angle (a positive angle). This maybe helping Islam not harming it. Let them do or say what they want. Islam is still going strong.
5. zeet_zeet: ok fine boycott but don't burn or kill

When addressing insiders (other Muslims) as depicted above, Yahya uses questions and an historical example to show Muslims that boycotts and violence are not the right answer. He further emphasizes that these approaches could backfire, judging from past experience. Specifically, Yahya's questions draw upon an intertextual reference of the case of the Indian author Salman Rushdi, whose (1988) novel was perceived to have gravely insulted certain Islamic concepts. This incident led Muslims to protest violently all over the world and the end result was that Salman Rushdi's book received a great deal of attention and became a bestseller. Many Muslims in the chatroom criticized Yahya's request to not make a big fuss about the insulting cartoons published by the Danish newspaper, as they believed it was their Muslim duty to fight back and defend Islamic authoritative discourses. Yahya's request was seen as inappropriate as well as too liberal.

In exchanges with outsiders about the same topic, Yahya constructs a different position of being a sensible and diplomatic person who uses logic to argue about the inappropriateness of the Danish action. He further exhibits a traditional stance by requesting that authoritative discourses be left intact. In response to non-Muslims' arguments that what the Danish newspaper did falls into the category of freedom of speech, Yahya gives the following rebuttals:

Example 2b: Discourse with Outsiders

1. zeet_zeet: freedom of speech doesn't mean insulting prophets, I condemn such behavior (zeet22:39)

2. zeet_zeet: txn you already insult your Jesus, txn it's nothing new to you, you sit there and laugh ..shame!
3. zeet_zeet: case, we know you dont show any respect to your Bible nor to your Jesus
4. zeet_zeet: you hang him naked on a cross, so why would you care
5. zeet_zeet: vamnom..is it OK if I come to your house and insult your family and call you names, then I leave saying: hey, I'm just expressing my freedom of speech?
6. zeet_zeet: would you sit back n laugh. No, you would react and violently probably
7. mid_day_light: if making a picture of a man is wrong, you are worshipping that man
8. zeet_zeet: mid it's the other way around, when you make pictures of a prophet, you're worshipping him
9. zeet_zeet: midday I dont pray to pictures in fact I pray to Allah the un seen
10. zeet_zeet: mid I 'm saying prophets should be respected and out of so called freedom of speech
11. zeet_zeet: we dont talk bad about prophets, it's haram
12. zeet_zeet: mid day drawing pictures of someone's prophet or religion cause much damage, so why do it in the name of freedom of speech
13. zeet_zeet: unless you're asking for troubles
14. zeet_zeet: mid I'm saying one should respect the feeling of followers of religions.
15. zeet_zeet: what would you gain out of making cartoons?
16. guy_in_syracuse: zeet - Muslims are going to have to learn to deal with Satire if they are to survive in the new global economy.
17. txn_5_5: zeet — that respect is to know that all humans can make up their own minds about whats drawn or panintted or art
18. zeet_zeet: Listen, the bottom line is that lakum deinakum a leia deen
19. zeet_zeet: josh, do jews like it when someone makes fun of holocaust. No why, because it hurts their feeling. To us, making fun of our prophet or any prophet, hurts our feelings. Bottom line; lakum deinakum wa lei diiny. I have my religion, you have yours. Respect mine, I'll respect yours. Only then can we live in peace.

When addressing non-Muslims, Yahya takes a different position in which he makes it clear that freedom of speech does not mean hurting others' feelings and saying whatever one wishes to say. (In marked contrast, he told insiders, 'Let them say what they want to say'). First, he clearly states that he condemns the Danish behavior. Then, in response to the outsiders' comment that this is freedom of speech, Yahya has three answers. To the Christian chat participants, he states he understands why they don't get his point because they have no respect for their own bible and prophet Jesus (lines 2, 3, 4). To the Jewish chat participants, he uses an analogy that joking about certain topics (such as the Holocaust) hurts; therefore, such topics should not be joked about (line 19). To chat participants who are neither Christian nor Jewish, he combats their criticism with logical questions (lines 5, 6) (*Is it ok for me to come to your house and insult your family in the name of freedom of speech?*) and reminds them that disrespecting people's beliefs leads to trouble. He also states that in Islam, it is forbidden to disrespect prophets (it is an authoritative discourse) and emphasizes that there has to be limits to freedom of speech. In doing so, Yahya fulfills his duty as a defender of Islam and constructs himself as less liberal and more traditional. In line 6, it appears that he even defends Muslim's violent responses to disrespect.

When all of his attempts fail to make the others see his point, he turns to an intertextual reference from the Qur'an of a fundamental Islamic authoritative discourse that calls for respect for all religions. *Lakum deinukum wa li ya deiny* [chapter 109, verse 6] means "you are free to choose your religion and I am free to choose mine." Only then can people live in peace naturally. This positions Yahya as a sensible man who is fulfilling his duty as a protector of Islam by trying to make outsiders see where they went wrong and inadvertently defends the Muslims whom he criticized earlier. In doing so, he calls to keeping authoritative discourses intact. He turns the table on the outsiders by resorting to their practices and their own beliefs as well as logically refuting their arguments that freedom of speech means insulting anyone and saying anything one wants to say (this is somewhat a traditionalist position).

Authoritative Discourses/Actions 3, 4, and 5: Forbidding Music, Cutting off the Hands of Thieves, and Praying Five Times a Day:

In these final examples, Yahya and other Muslim chat discussants argue about several taken-for-granted topics (authoritative discourse) among Muslims. I discuss these topics together because, in reality, one discussion led to another. Traditionally, Muslims are told that the hands of a thief must be chopped off as punishment, that listening to music is not allowed, and that Muslims should diligently pray five times a day at certain times. The first two are internally persuasive discourse, while the last one is an example of an authoritative discourse. I first illustrate Yahya's stance towards these discourses with insiders. In this discussion with Muslims, Yahya uses the nickname of wishmaster90. .thoritative discourses in act.creates a far traditional identity that likes to keep authoritative discourses in tact.s regardi Because seeing the contributions of others is essential to understanding Yahya's arguments, I did not extract Yahya's contributions out of context.

Example 3a: Discourse with insiders

1. aadila20032000: music is allowed as per sunnah?
2. aadila20032000: bro decent is very much against music..he sent me mail over that... would post in room Insha'Allah some time
3. mia_mia_kat: i thought it depended on the content?
4. ghost_teacher: the two things that are allowed are DRUMS and DAF
5. ghost_teacher: no music is not allowed as per sunnah the two things permissable are DRUMS and DAF
6. wishmaster90: who says music is haram? thats absurd....Quraan is clear ...go read it...
7. ghost_teacher: wish where in Quran its says it legit; there is a hadith that says it is haram, mullas say it is haram
8. wishmaster90: i dont give a damn about what some self appointed scholars say... and a lot of Hadiths are corrupt, theyre just attributed to Mohammed
9. ghost_teacher: wish nobody gives a damn as what you say
10. wishmaster90: ghost is there any verse in the Quraan that forbids music? Just like there isn't a verse that says we have to pray five times a day
11. wishmaster90: show me the verse
12. wishmaster90: music is food of soul....
13. ghost_teacher: so wish if you only believe in Quraan, then how can you say thieves hands shouldn't be cut. It says right there in quraan wassariq wassariqa faqta?uu aydeihum.
14. wishmaster90: I believe in quraan cause it is the only holy book that hasn't been changed by corrupt hands. Many Hadiths are true but many also were just added … think.. many dont make sense.

15. ghost_teacher: wish wassariq wassariqa faqta?uu aydeihum.
16. wishmaster90: u r reading it literally… cutting hands here means stop them from working not literal cut. It's unfair if if u cut someones hands just because they stole a bread. May be theyre hungry. Allah is fair. Its metaphoric. Wa rattle al quraana tarteela!

In this discussion, several traditionally authoritative discourses such as verses from the Qur'an and Hadith, prophet Mohammed's sayings, become internally persuasive discourses. While Muslims are told that music is forbidden in Islam, Yahya is right in arguing that no verses in the Qur'an exist that forbid music. Yahya also questions prophet Mohammed's sayings by claiming that many of these Hadiths were added later and one should distinguish the correct ones from the bad ones. This is common knowledge among Muslims; however, according to Yahya, Muslims treat all the Hadiths as sacred. Then in line 13, Yahya is questioned about his own belief that one mainly should follow the Qur'an because it is the word of God that has not been tampered with by anyone. If the Qur'an is the only book that should be followed, ghost_teacher asks, then how come Yahya does not believe in cutting off thieves' hands, despite the fact that it is written in the Qur'an that chopping hands off is the punishment for stealing? Yahya's rebuttal is that that the cutting in the Qur'an is metaphorical. Once again, he draws upon an intertextual repetition to the Qur'an of *Wa rattilil Qur'ana tarteela*, which means one should contextualize and think about what one reads in the Qur'an. As with other examples, questioning verses from the Qur'an and some of Mohammed's sayings paints Yahya as a liberal Muslim in this chatroom interaction with insiders because he is opening authoritative discourses to debate.

With outsiders, however, when these topics come up, Yahya simply dismisses them as being mere misconceptions that are not worth discussing. Note that Yahya uses the online nickname of Lunatic-in-head in these discourses.

Example 3b: Discourse with outsiders

1. Freedom-Freedom: So is it really true you don't listen to music.
2. Lunatic-in-head: Who said so; don't u have Arabic tv, we sing and shake booties all day long.
3. Freedom-Freedom: But it says so in your book
4. Lunatic-in-head: It's just misconceptions; as long as you are a good person and you pray 5 times a day, you are ok, u can listen to anything, and we do.
5. Whilde-1967: U muslims cut hands of thieves
6. Lunatic-in-head: It's a cultural misconception whiled and besides no country obeys it anyway, name a country that follows this misconception. No one…

In dismissing these discourses, Yahya once again acts as a protector of Islam by not admitting to outsiders the internal differences present in Islam. In so doing, he creates a less liberal and less controversial identity with the aim to keep outsiders at bay and to keep Islamic discourses authoritative.

CONCLUDING REMARKS

I have identified intertextuality as a primary means by which Yahya constructs his religious identities online. He intertextually repeats and reshapes not only words but also actions and events. For instance, he repeats words of other chat participants (e.g., Sakeena's "Muslims are Muslims"), repeats lines from the Qur'an, and also makes intertextual references to events (e.g., Salman Rushdi's book and its aftermath). Additionally, Yahya recontextualizes important events and actions in other religions and sects of Islam, such as Jesus on the cross, the Holocaust, and praying to Ali. All these recontextualizations enable Yahya to construct a liberal identity with insiders by turning several Islamic authoritative discourses into internally persuasive ones and, simultaneously, a far more traditional identity with outsiders by keeping authoritative discourses intact. Using intertextual repetition in online chatroom discourse thus enables Yahya to take on the role of a messenger of God, and, in doing so, fulfill a crucial part of his identity as a Muslim. That is, Yahya's participation in these chatrooms enables him to fulfill his duty as a "good Muslim" by questioning Islam with insiders and defending it against outsiders. This is the essence of what has come to be known as the enlightener identity. Through participating in chatroom discourse, Yahya also demonstrates on the broadest level that there is more to him than just being a person with a disability. The focus of my analysis, however, was more specifically on the complex type of religious identity Yahya creates and the role of intertextuality in so doing.

Prior to discussing the ramification of such findings, a word is in order on the validity of case studies and the possibility of generalizing their findings. I have chosen to conduct a qualitative sociolinguistic examination of the interactions of one participant online for two reasons: First, since most research on CMC is quantitative, I wanted to complement the existing research and, in turn, arrive at a comprehensive analysis of what happens online. Further, while quantitative analyses enrich our understanding of the role the Internet is playing in the lives of its users, numerous studies in sociolinguistics and discourse analysis by scholars have demonstrated the value of qualitative case study research, especially in the area of identity construction. Hamilton's (1996) case study of interactions between herself and an Alzheimer's patient (as mentioned in the background section of this chapter) comes to mind as an example of a study that, while focusing on the discourse of two individuals, has larger implications and gives insights into communicative phenomena like collaborative meaning making and identity creation. Likewise, Schiffrin's (2000) analysis of narratives appearing in sociolinguistic interviews has made important contributions to our understanding of identity creation in discourse. Tannen's (1989, 2005) groundbreaking work on conversational styles, moreover, is based on a case study of her interactions with a group of friends. Thus, I believe that this study's designation as a case study does not weaken its value and, on the contrary, complements existing CMC research.[2]

Having said that, the aim of this chapter is not to generalize how all online chat participants create identities, but to conduct a case study, the first of its kind, to both see the precise effect the Internet is having on its Muslim users in particular and investigate the role of intertextuality in online identity construction. Because I examine the interactions of one person across a lengthy period of time and multiple interactional contexts, I am able to capture an identity construction strategy that I might have otherwise missed. If Yahya's contributions with insiders and outsiders are analyzed on their own, without looking across these chatroom conversations, one can get the wrong idea: either that Yahya is too liberal or too traditional. Comparing both bodies of discourse illustrates that identities are complex because the enlightener identity requires the construction of two different local identities depending upon who is talking and who is receiving the message. Norris (2004) similarly noted this finding in her analysis of the multimodal interactions of two German women. This demonstrates the necessity of conducting intertextual and longitudinal analysis of identity construction if one is to understand the complex nature of identities. It also points out the complexity of identities. This chapter, thus, issues a call to further examine the nature of this complexity through diachronic analyses of intertextual texts and actions. It is a call to contextualize the concept of identity which has been studied in isolation for far too long.

Yahya's intertextual repetitions of discourses and actions and his online interlocutors' choice of topics further indicate that the Internet has indeed helped transform many Islamic authoritative discourses into becoming internally persuasive. That is, topics that were not open to discussion in face-to-face interactions are now open for debate through CMC. This raises further questions about the new roles that Mullahs or Islamic religious leaders may have to take in the cyber world. What is more, many of these discussions have, indeed, led Yahya and some of his close friends to change how they practice Islam. That is, turning Islamic authoritative discourses into internally persuasive ones and creating online religious identities have started leaving marks on their users' offline identities. Future research needs to examine this link between online and offline realities. This is especially important, given the need to understand Muslim religious identities in this new world order.

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KEY TERMS AND DEFINITIONS

Authoritative Discourse: According to Bakhtin (1981), authoritative discourse is the word of ancestors that comes from the past and which, for the most part, stands unquestioned. Examples of authoritative discourse are religious texts such as the Qur'an, the holy book of Islam, and Hadith, prophet Mohammed's sayings.

Chatroom Discourse: Forums of conversational exchanges that take place online through various theme-related websites.

Enlightener Identity: In this chapter, the Islamic religious identity of an enlightener is constructed through juxtaposing two contrastive religious identities: a liberal identity (when interacting with other Muslims) and a far more traditional one (when interacting with non-Muslims). The enlightener identity is taken up by Muslims whose goal is to reawaken other Muslims by making them think for themselves rather than depending on ready-made interpretations of others.

Insiders and Outsiders: In this chapter, insiders refer to Muslims and outsiders refer to non-Muslims.

Internally Persuasive Discourse: According to Bakhtin (1981), internally persuasive discourse is the type of discourse that is open to engagements with other points of view i.e., it can be negotiated. Examples from the Islamic context involve the practice of cutting off the hands of thieves (a very controversial issue within Islamic circles).

Islamic Religious Discourse: Islamic religious discourse in this chapter refers to the Qur'an, the holy book of Islam; Hadith, prophet Mohammed' sayings; and Islamic practices and doctrines such as praying and fasting.

Sociolinguistic Case Study: It is an in–depth qualitative analysis of the discourse of a small number of participants from the perspective of language in use or language in context.

ENDNOTES

1 Other scholars who have also noted the limitations induced by tying intertextuality to texts alone are Fairclough (1995) and Kress (2000).

2 Whether conducting qualitative or quantitative analyses, one cannot help but pose questions about the possibility of making generalizations and the question of subjectivity and objectivity. Tannen (1971) explains that one way to make sure one's findings are as objective as possible is to apply the "A-ha" factor test, whereby the findings of a case study are discussed with as many non-participants as possible. However, as Johnstone (1999) argues, subjectivity is a complicated issue because quantitative studies, while claiming to be objective, can be subjective as well. Researchers, for instance, must decide which topics to code for, and so on.

Chapter 13
Gender Consciousness in Computer-Mediated Discourse in Nigeria

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ABSTRACT

The main preoccupation of this paper is the examination of language used in computer-mediated discourse and the extent to which it mirrors the society and how far women are involved or still discriminated against in Nigerian social world. To achieve this purpose, Discourse Analysis and Hymes' Ethnography of s.p.e.a.k.i.n.g theory is adopted due to its adequate provision for various variables in communication. Corpus from "NaijaWorld" chat forum was used. From the analysis, it is realised that online language is used for many purposes. In addition, the norms of a chatroom and the Nigerian sociolinguistic variables converge to influence the participants. Some modifications to Nigerian social status-quo were discovered, that is, man-the-norm syndrome is being eroded in Nigerian social life with some recognition accorded the rights of women.

INTRODUCTION

Right from the creation period, woman has always been discriminated against. She is seen as an instrument of debasement. The view of the Bible, which was adopted by the Qur'an, has serious implication on peoples' perception of the sexes as human beings. God has created man from dust and woman from the ribs of man – dust from dust. Woman, if presented in this manner, can be regarded as a mere appendage of man-the-superior sex. In both the Bible and the Qur'an, God Himself is often presented as a man as accentuated by Jesus Christ in "The Lord's Prayer: Our Father, who hath in Heaven…." In the Bible, the "original sin in the Garden of Eden was woman's. She tasted the forbidden fruit, tempted Adam and has been paying for it ever since" (Haralambos & Holborn, 2004: p. 92). This then is the more reason why womanhood must be debased and treated shabbily?

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In a patriarchal society all over the world, the masculine sex's activities and traits are positively portrayed, while the feminine conducts and peculiarities are expressed in uncomplimentary negative expression. This indeed is obviously a proclamation of man-the-norm syndrome: where man's activities are superior and woman's acts inferior. This noncomplimentary attitude is the origin of the controversy on the language of public communication. One side of the divide stands for the change of sexism language to a gender conscious discourse. Feminist writers represent this school of thought and some of them rather recommend a total overhaul of current linguistic form (See Ayim & Goosns, 1993; Sakita, 1995 & Surin, 1995). Shepelak (1980) as cited by Michard & Violet (1991: p. 16) gives the real reasons for the resistance to change in sexist language as a perpetual "continuation of the socio-political control by men". This unwholesome attitude of man eventually led to the vigorous resistance of the feminine gender in the United Nations. The UN World Women's conferences:

It began with a year
It turned into a decade
It gave birth to a movement
It became a revolution. (*Preview 2000*, February 1999: p. 2).

In Nigeria, for instance, a woman is not expected to hold any very sensitive political position. The emergence of women of calibre like Efunsetan Aniwura, Funmilayo Ransome Kuti, Queen Amina (in history), Dora Akunyili, Okonjo Iweala and others (in the contemporary political terrain) is seen as an aberration. Against this background, this study is hinged. This chapter, therefore, attempts to examine the extent Nigerian social cultural variables influence the language use and involvement of female Nigerians in online discourse.

SOURCE OF DATA

Data for this study are transcripts of posts and threads retrieved from NaijaWorld virtual community discourse setting. From the archives of NaijaWorld, 'posts' were sorted according to their similarity of purpose and categorised under overlapping headings. The headings encompass many discourse situations. Some of the headings are:

1. News Flash
2. Relationship and Romance
3. Prayers and Prayer Requests,
4. All Nigeria
5. Poetry and Music
6. Da Joint
   1. Technology
   2. Religion and Beliefs
   3. Politics, Life, Society and Social Issues

From these various headings, we are going to randomly select News Flash, All Nigeria and Politics, Life, Society and Social Issues, which are considered as the heading that unify all Nigerians and those people who have interest in Nigerian affairs.

NaijaWorld is a nongovernmental online community formed over the internet to discuss issues affecting Nigeria in particular and mankind in general. As at September 12, 2007 when the data was downloaded, NaijaWorld members were 953. They produced 24,688 posts and threads.

Membership of *NaijaWorld* is open to all and sundry. Consequently, membership is drawn from both sexes and different ethnic groups. However, it is difficult to draw sex-line of individual members because they are not specifically stated. They were, however, deduced through their cybenyms and utterances. Although there is supposed to be anonymity in chatroom talk (Greenfield & Tynes, 2004), it is not maintained. One of the benefits provided to protect individual participants in chatroom talk, especially during registration is anonymity. In the strict sense, there is no anonymity. To determine the sex and/or the ethnic group a particular participant belongs to was found relatively easy. One just needs to examine the utterances issued when they initiate or respond to an initiating turn. It could even be concluded that some of the participants used their real names as their screen names, and more importantly, several pieces of confidential information were self-disclosed by the participants. We can then conclude that there is no anonymity in chatroom talk in the strict sense.

The weak state of the confidentiality in terms of anonymity hinges on sociological variables like sexism or sex pride, tribal cum mother tongue influence, etc. The weak state of anonymity is an advantage to us in this study. Two tribes whose cultures are closely related, Yoruba and Igbo, were distinguished and the online names served as a pointer that enables us to identify the sex and, at times, the tribe of the individual participant. This conclusion may sound overambitious but a good understanding of Nigerian culture supports it. In Nigeria, as in many other African countries, except in recent time, male names were significantly different from female names. Moreover, even till recently, there were some nicks male gender would never want to take. It was considered an insult, for example, to refer to a boy as girlish or feminine in nature. If a participant in chatroom talk, therefore, picks a name like “pussycat, Lady T, Mercy”, it is easy to ascribe such to the female gender and names like “Bross-D (Brother-D), Pa-K (Papa-K, Peteru (Peter)” as male. Consequently, while chatroom tends to provide anonymity, sociolinguistic demands tend to undermine it.

For the purpose of this study, the segments titled “News Flash, All Nigeria and Politics, Life, Society and Social Issues” were selected. As at 4/5/2007, these sections contain 105 posts. It is also observed that the three segments are overlapping in the sociolinguistic feature being investigated. As a consequence of this, out of the total of 105 posts, 57 posts and their threads, which covered a period of two years, that is, 8/4/2005 to 4/5/2007 were randomly selected for use in this study.

From other ones like NairaLand, Naijanet, etc., the NaijaWorld online community discourse setting was randomly chosen. Three different types of people exist in NaijaWorld: i) “posters” (those participants who initiated the topics, ii) “threaders” (participants who react to posts), and iii) “Lurkers”, (those people who are not active participants in the talk. They are not easy to recognise because they did not partake in the discourse).

THEORETICAL FRAMEWORK

Several theories have been propounded by sociolinguists for the analysis of social data. The Deficit Hypothesis (Basil Bernstein), the Variability concept (William Labov) and the Speech Act Theory (John Austin) are very notable theories in sociolinguistics. In this study, we shall be eclectic in our approach. Dell Hymes’ Ethnography of Communication will form our major theory. Hymes’ theory was based on spoken discourse, no doubt, its adaptation can be fruitful in Computer Mediated Discourse (CMD).This decision is in line with Harrison (1998, p.1) when she states that ‘The aim of this paper (her own paper) is to demonstrate that a framework of analysis from spoken discourse analysis can be used successfully to investigate interactive written discourse of e-mail’. We shall also touch discourse analysis theories found relevant to this study.

REVIEW OF RELATED LITERATURE

It is found expedient to open the review of literature of this study by examining the contemporary Nigerian society vis-à-vis its gender celebration. This will form the first consideration of this study. With the existence of the two modern religions: Christianity and Islam in Nigeria, the women folk are usually relegated to the background in all things as the two religions dictate: they are to play the second fiddle; they should not raise their heads and voices when the man 'booms'. Male/female language use is distinguishable along phonetics (pitch or voice modulation, semantics (choice of lexis) and rhetoric, that is, mannerism, topic of discussion, Turntaking attitudes, discourse dominance and control, etc.

Feminists critics in their struggle for women social emancipation can determine whether a language use is sexist or not, that is, whether its use accords superiority to a particular sex or not, since, for example, 'he' and 'him' are usually the pronouns used generically to represent the two genders and even God, as in the following English proverbs:

The downfall of a man is not the end of his life.
A bad workman quarrels with his tool
With some protests, there is modification to the terms. Instead of:
If anyone is interested, let him raise his hand,
it has been adjusted to a statement like:
If anyone is interested, let them raise their hands.
This is not gender biased.
(Oloruntoba-Oju, 1999: pp. 131-132)

Akindele & Adegbite (2005), commenting more elaborately on sexism, observe that linguists have, through research, discovered a difference between the language of male and female in many societies. Krammer (1977) asserts that the speech of male, especially native speakers of English, is forceful, efficient, blunt, authoritative, serious, effective, sparing and masterful, while women's speech is believed to be weak, trivial, ineffective, hesitant, hyperpolite, euphemistic, often characterised by gossip and gibberish. Harmant (1976) opines that women's speech lacks precision, and it is flowery and tentative. However, Thorne and Henley (1975) and Trudgill (1975) claim that women use standard or near-standard language more than men.

The argument that women's language is more polite and more refined, is very widespread and has been current for many centuries (Coates, 1986. See also Jespersen, 1927 cited in Gramley & Patzold, 1975). Thus the use of vulgar language is often less associated with women (Fakoya, 2007), men are more likely, than women, to use obscene expressions (Gramley & Patzold, 1995, cited in Salami, 2006).

Brend (1975) asserts that women use high pitch in their speech more than men. Argyle *et al.* (1968) also observe that men talk longer than women. Chesler (1971) & Akindele (1988) opine that it is almost always that men initiate, control and dominate discourse, especially when they engage female coparticipants. Against the background that women nag, chatter and are loquacious and listen too little, Zimmerman & West (1975) assert that on the contrary, men interrupt at 78% rate in a mixed sex conversation, thus using it to maintain supremacy over the women.

Bosmajian (1972) claims that male supremacy over female's in language use presents women as edible, e.g. honey, chick, dish and sweet tomato. Some occupational terms, which seem to preclude women are: airman, cameraman, statesman and such other sex discriminatory terms like 'bachelor' for unmarried men but 'bachelor girl', 'spinster' or 'old maid' for unmarried female. Oakley (1974) also opines that gender roles are culturally rather than biologically determined. Women are traditionally consigned to jobs that are in essence supportive, for instance, men cut the trees, women pack the falling trees; man is the doctor, woman is the nurse.

The second consideration is based on online discourse, especially in English as a Second Language (ESL) situation. The Global System for Mobile Communications (GSM) got to Nigerian soil in 2001 (Chiluwa, 2007). It brought scientific and social development in its wake. Nigerians quickly learned and adopted the linguistic and social introductions which are 'based on a particular linguistic domain' (Awonusi, 2004, p. 45).

GSM is a form of internet means of communication with its own linguistic peculiarities. One of the major peculiarities is that which hinges on mode of discourse as suggested by Allerton (1991). Allerton (1991) compared written and verbal discourse and arrived at the assertion that the two media have different uses which accentuate their natures. This observation, among others, separates face-to-face interaction from online talk.

Gousseva (1998) presents a list of elements in electronic communication (netiquette). Such features are: "All caps" to signal high pitch/shouting; "signs": <grin>, <sigh> (to indicate writer's mood/attitude, and "smileys". The best known "smileys" are:-) for smile; ;-) for wink and ;-(for frown. These symbols are used to reflect kinesics in online talk.

The English orthography and grammar emerging in chatroom talk is not gender sensitive neither is it attributable to Nigerian Standard English. Therefore the abbreviations, spellings and symbols therein are new but definitely not purely an element of Nigerian Standard English. It exhibits some features which are distinct from almost all other informal discourse types (Chiluwa, 2007)

CONTENT ANALYSIS AND DISCUSSION

Hymes (1967) presents an ethnographic theory of speaking which, we find relevant for the analysis of the data for this study. The theory comes in the popularized acronym of S.P.E.A.K.I.N.G.

S - Setting

Hymes (1967:21) describes setting as "time and place of speech event" Computer-Mediated-Discourse (CMD) also known as Internet Relay Chat (IRC) (Bays, 1988) is the speech event in focus here. The CMD participants operate on the internet. There is no proof that they all live in Nigeria, and they may not all even be Nigerians. But what is certain is that they all share interest in Nigeria and any such matters that concern Nigeria as a nation. They also must be conversant with one or more of the Nigerian cultures and religions, since Nigerians are considered to be very religious (Sijuade, 2008).

Computer-Mediated-Discourse is not face-to-face. It, however, may be simultaneous and almost naturally occurring. In line with this argument, Gousseva (1998) opines that e-mail is instantaneous but not immediate, as the message itself reaches the receiver almost as fast as oral speech but the response usually takes longer, as the receiver determines when to access it.

Chatroom talk is informal. Hawisher & Moran (1997) opine that despite the impersonality of communication via the internet, it can arouse an intimate and highly personal discourse. (See also Yates & Orlikowski, 1993 & Harrison, 1998). This argument is supported by Gousseva's (1998, p. 3) conclusion that 'it is informal yet it has its own rules'. This, of course, contradicts Allerton (1991, p. 470) who concludes that 'because speech is direct and immediate, it has come to be associated with informal situation'. The response to a post may also be delayed. It is screen-to-screen, that is, through the computers hooked to the internet. There is no time limit as in face-to-face talk, and some kinesics that may be used to cower down participants are almost absent. Participants send their posts at anytime of the day and the responses to them may run for a week or more.

EXCHANGE 1

Lebussypet 04-15-2005. 08:51 PM 1

(Thn Missy)

You are welcome, but have u checked ur credit report?

Table 1. Gender participation in chatroom talk

Gender	Frequency	No. of Thread	Mean
Male	14	95	6.786
Female	15	187	12.467
Total	29	282	9.724

Goldmercy 04-15-2005. 09:42 PM 2

Your are welcome but have u checked ur credit report?

Yes I have.

A close examination of the exchange above confirms that chatroom exchange initiation may last some substantial time before it is responded to. Lebussypet released her thread at 08:51 PM and Goldmercy does not respond to it until 09:42 PM, almost an hour later.

P - Participants

The participants are those people who take part in a talk. Hymes (1967: p. 21) observes that some rules hold for a participant independent of his role as speaker or hearer. In CMD, three parties can be identified: the initiator, the respondent and the 'lurkers', that is, those participants who do not respond to the post either out of being non-members, having no interest in the topic, no time to spare or not online to receive the post.

The table above shows that male participants issued an average of 6.786 threads, while the female participants issued 12.467 threads. The average of threads issued by the female participants is almost double the average of the threads issued by the male participants despite the closeness in the number of participants - ratio 15:14.

From this result, we can say that Nigerian women can afford to spend more time on the internet than the men. The culture is that the man must feed the woman. This gives the woman more free time to engage in many things that catch her fancy. Moreover, Zimmerman and West's (1975) finding is just being corroborated, that is, women are more loquacious than men.

E- Ends

Ends are described as the purpose or goal (illocutionary force) for a transaction to occur. It is the intention and effect(s) of the turn on the participants. Here, the pragmatic forces of locutionary, illocutionary and perlocutionary come to bear. A particular participant must have sent a post with a structure (locutionary force) and purpose (illocutionary force) and the coparticipants will respond/react to it in a particular manner (perlocutionary force).

EXCHANGE 2

Shandybabe 04-23-2007, 11:46 AM 3

The Independent National Electoral commission (INEC) has declared the result of the presidential election, giving as expected, landslide victory to the candidate of the People's Democratic Party (PDP), Alhaji Umar Musa Yar'Adua.

INEC chairman, Maurice Iwu said Yar'Adua polled 24,638,093 votes

General Muhammadu Buhari, candidate of the All Nigeria Peoples Party came a distant second, recording 6,605,299.

The Vice president, Atiku Abubakar, candidate of the Action Congress polled 2,637, 848.

Other results are: ADC: 50,849

Fresh party: 24049.

Earlier results announced since yesterday favoured Yar'Adua.

It was obvious that the announcement of Yar'Adua as winner of the presidential contest this afternoon was a mere formality.

As at yesterday before the final collation of results, Yar'Adua was leading in more than 10 states.

EITHER WE LIKE IT OR NOT PDP RULES AGAIN.

FRIENDS WHATS UR OPINION ABOUT THESE RESULTS?

Temmy 04-23-2007, 02:30 PM 4

My opinion is praise God. It is not all about the party; it is all about the candidates. Yar'adua is the fittest of all.

Lovita 04-23-2007, 03:22 PM 5

Hmm don't know much abt him so no comments

Shandybabe 04-24-2007, 12:16 PM 6

Temmy, am sure u are yar'adua's fan:-):-):-)

Omo OBJ!:-):-):-)

Temmy 04-24-2007, 12:25 PM 7

It is not a matter of I'm yar'adua's fan. It is a matter of a man that has history. Check out what he did in Katsina state. The people of Katsina are still worshipping him till tomorrow. Rig or no rig the plan of God will stand forever. God loves Nigerian that is why even though we are not the richest country in the world right now. We are still the envy of the world:-(:-(:-(

Shandybabe issued her post (Turn 3). She is of the opinion that the election results are not free of rigging, for example:

I…giving as expected, landslide victory to the candidate of the People's Democratic Party (PDP), Alhaji Musa Yar'Adua…INEC chairman, Maurice Iwu, said Yar'Adua polled 24,683,093 votes, General Muhammad Buhari…came a distant second… It was obvious that…was a mere formality…EITHER WE LIKE IT OR NOT, PDP RULES AGAIN.

With this excerpt, the intention of Sandybabe is not hidden. Her opinion is a call to her friends to condemn the results. This is also confirmed by her response to Temmy's turn:

Shanddybabe: temmy, am sure u are Yar'adua's fan:-)… omo OBJ…:-)

However, we could see that Temmy in her thread remains resolute about her opinion of the election results.

From this post and its threads, it is obvious that most political game-players are men. In real life, especially on the radios, televisions, and the newspapers, the male citizens are the champion commentators, while the female are online. There is a question that comes readily to mind through one's observation of Nigerian political terrain. Is it out of cultural/social consciousness or cowardice that women do not participate actively in politics in Nigeria? We shall rather suggest that women should come to the open in the treatment of burning issues that affect them rather than hiding.

The utterances have a form and a shape that could be seen and read. The posters' intention is to incite her friends to condemn the results of the election. But instead of condemnation, they applauded it.

A - Act Characteristics

Act characteristics are the closely linked aspects of speech act: the form and the content of what is said, or 'message' form and topic. In our data for this study, both the message and content are preserved. Since it is on the screen, the response is often given by first quoting the preceding turn, which may be as large as a whole page, before the response is issued. This characteristics is not common in face-to-face talk. It actually separates verbal talk form chatroom discourse. This repetition is necessary to refresh the memory of the poster, especially since the initiation and its responses are not always simultaneous. The message is always preserved, since it is in written form. It is not possible for an initiator to deny his/her turn as the case may be in face-to-face talk.

EXCHANGE 3

Sid 04-19-2005, 03:12 PM 8

It looks like the society and the world is beginning to accept the fact that being gay or homosexual s bad. And there are still those that frown on it,. My question is:

If you found out that your brother, sister of friend who is gay, how do you react and relate to them especially your blood brother or sister, what will your feelings be? Lets discuss it.

The second question is:

How do you view and relate to those that are gay?

Let our your views and thoughts on this.

Goldmercy 04-19-2005, 05:04 PM 9

It looks like the society and the world is beginning to accept the fact that being gay or homosexual s bad. And there are still those that frown on it. My question is:

If you found out that your brother, sister of friend who is gay, how do you react and relate to them, especially your blood brother or sister, what will your feelings be lets discuss it.

The second question is:

How do you view and relate to those that are gay?

Let our your views and thoughts on this

well, i won't like it if ma brother is gay, but thank God he is not, also, i have been around gay people cos i went to an all gurl school and i have been around gurls for 6 years and we had a lot of lesbian gurls in ma school then but i relate to them as i will relate to other gurls who are not lesbians….

but if the gurls were ma family, I dont think we will ever be in talking terms.

In the first instance, Turn 9 has Turn 8 repeated in it; the initiating turn made by Sid at 3:28 PM. The response to it is issued by Goldmercy by 5:04 PM. From Turn 9, we are able to deduce several conclusions: i) that she is a woman having been in a girls secondary school for six years, ii) Goldmercy is between twenty and thirty years having gone through a six year secondary school system, iii) she detests lesbianism and hates a lesbian being her family member, iv) her use of the English language is not very good not just because of the freedom enjoyed by internet participants to save time but her spelling problem, e.g. writing 'gurl' for 'girl', 'i' for 'I', 'ma' for 'my', etc. There is no need for the substitutions. The acceptance of these shortcomings by her coparticipants does not mean that she uses standard Nigerian English (if there is anything like that), but she exercises her poetic licence to the fullest: just say something anyhow and we shall try to understand you.

K - Key

Hymes (1967:24) presents key as the 'tone, manner or spirit in which an act is done'. Should there be conflict between act (content) and manner, Hymes explains that the manner of an act overrides the content in determining its true significance. He further opines that the key may not be verbal, that is, it may be kinesics, e.g. wink or such other gestures sometimes embedded in the message. For example, if the content of thread is

I am awake

But followed by a stifled yawn, and/or drooping eyelids, the manner dictates that the content should be understood as 'feeling drowsy'.

In CMD, the conflict between content and manner is facilitated through the use of emoticons sometimes used to signify that a particular serious looking and sounding statement should be taken as a mere joke.

EXCHANGE 4

Temmy 23-04-2007, 02:30 PM 10

My opinion is praise God. It is not all about the party; it is all about the candidates. Yar'Adua is the fittest of all.

Shandybabe 24-04-2007, 12:16 PM 11

Temmy am sure u are yar'adua's fan.:-):-):-)

Shandybabe has earlier on requested her coparticipants' opinion about the victory of Alhaji Umar Musa Yar'Adua at the 2007 presidential election. In the exchange above, Temmy regards Yar'Adua as the best of the contestants and thereby, supports his electoral victory. However, Shandybabe attempts to undermine the truthfulness of Temmy's claim. She thus accuses Temmy of being a fan of Yar'Adua, one who is influenced by OBJ (President Olusegun Obasanjo, the immediate past president of the Federal Republic of Nigeria). Shandybabe's accusation should have provoked flaming for the fact that at the time of the election, the immediate past president together with his party was not very popular. In addition, Shandybabe's accusation may make Temmy lose face. However, Shandybabe prevents the impending quarrel with the use of emoticon: ':-):-):-)'. In the above context, it means 'I am just teasing you, laugh it off'.

I - Instrumentalities

Instrumentality is explained as the channel and code, that is, the choice of 'oral, written, telegraphic, semaphore or other mediums' of carrying out the discourse, while code means the language and its varieties, that is, the subcodes in use. The channel of the data can be considered as both oral and written in that the speech is typed, accessed and read by the coparticipants on screen. Internet facilitates the process. The main code in use is English. This is necessitated by the multilinguistic nature of Nigeria. Nigerians are bound to use English as a language of mutual intelligibility. Members of NaijaWorld online are drawn from many tribes of Nigeria, especially Yoruba and Ibo. Languages like Pidgin, Yoruba and Igbo infiltrated the posts and threads used in the data.

Peteru: 04-09-2005, 02:27 A.M. 12

Is it right to hit a woman?

No, but some women **sabi** *how to* **run mouth pass okro and ogbono** *join together.*

Dem no go shush *unless you do something drastic. However, I still don't think it's right hitting your wife no matter the circumstance, unless it's a playful hit….*

A good husband should know when/what to listen a, and when to leave the woman to temporarily become

'**nkechi onu ugba**' *(Nkechi the talkative)*

In this thread, three languages are in use: English (the main language), Pidgin – **sabi how to run mouth pass okro'** and Igbo **- 'ogbono', Nkechi onu ugba**. The idea that man, the husband, has the right to beat up his wife is also expressed. Peteru believes that when the woman says something that could infuriate the man, he should just let her be and consider her a 'talkative'. The mixture of the three languages in this single turn explicates normal casual conversation turn of a typical Nigerian, either male or female.

N - Norms

Norm of interaction and interpretation is described as the 'rules governing modes of address' (Hymes 1967:24). It refers to the behaviours exhibited during interaction. Some of the norms are: the use of special voice (as in religious worship) prohibition of interruption, etc. NaijaWorld talk is rule-governed. The electronic mode of transmitting the talk does not give allowance for interruption as it is allowed in face-to-face talk, and the use of special voice is cut-off, being nonverbal. It, however, has its own set of rules, e.g. one must be a registered member in order to participate in the talk. There must also be mutual respect displayed no matter the sex or creed. The rules are obeyed throughout the data: no insult passing, no participation from non-member, etc. What could have been considered an insult was warded off with emoticon in Turn 11 of Exchange 4.

G - Genres

'Genres are categories or types of speech act and speech event: conversation, curse, blessing, prayer, lecture, imprecation, sales, pitch, etc.' involved in the talk (Hymes, 1967:25). In NaijaWorld talk, genres are the various threads subsumed under the various titles engaged in: the topics/issues raised by the posts. They may come in form of politics, society life, social issues, marital talk, etc. The genres cover a wide range of pragmatic acts of greeting, advice, advances, prayers, showing deference, etc.

CONCLUSION

The claim that Nigeria is a patriarchal society is an axiom. No doubt, the man is the head of the family. It, however, does not reflect in Computer-Mediated-Discourse (CMD). There is scarcely any example of sex segregation in the data. The participants are not sex conscious. Apart from some few examples of expressions like 'you guys', self exposing names and the use of gender expressed pronouns, one may not be able to differentiate between male and female participants. The exposures were not done to insult either sex. There is no particular topic that is absolutely dominated by either sex: except that the female participants were more involved in CMD. Man-the-norm syndrome is being eroded from Nigerian social life with equal speech rights accorded both sexes. We must, however, say that the Nigerian female must keep on getting involved in all that happen around them. They should not merely demand for their rights but take interest in the exercise of their rights. Women should be more assertive, stand up for their rights to be independent rather than waiting for men to empower them (Abosede, 2009).

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KEY TERMS AND DEFINITIONS

Chat: This is an informal discussion on the internet among a particular set of people with common interest.

Chatroom: Discourse 'room' created on the internet for multicontributors' participation.

Computer-Mediated Discourse: This is the discourse situation that is engendered by hooking a computer to the internet for the purpose of having conversation with other ready participants.

Gender: This is the sex type a participant belongs to. It is used as a synonym of sex in this chapter.

NaijaWorld: This is a nongovernmental online community formed over the internet to discuss issues affecting Nigeria in particular and mankind in general.

Post: This is the main topic proposed by a participant to their coparticipants. Each participant responds to it intimately. It is often re-stated to avoid out of context contribution.

Talk: This is a term used in this chapter as a synonym of conversation and discourse.

Thread: This is a response to a post.

Chapter 14
Communication in Construction Design Teams:
Moving into the Virtual World

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ABSTRACT

Construction design involves communication and interaction between individuals and groups in complex social settings. Therefore, the social character of design activity cannot be separated from the technical results (Minneman, 1991). The challenge of collaborating within design teams has been intensified by increased globalization and the trend towards virtual teamwork, using information and communication technology. Although these virtual teams have resulted in increased client satisfaction, specific communication skills may be needed for team members to function efficiently and effectively in these environments. Using two analyses, derived from Systemic Functional Linguistics (Halliday & Matthiessen, 2004), communication in design teams operating in three environments was examined. Tensions between the efficient exchange of information and effective collaboration between team members were highlighted by these analyses; using these findings, specific strategies which facilitate communication and collaboration in these differing environments may be developed.

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INTRODUCTION

Building design has traditionally existed in an environment where people interact face-to-face using diagrams, plans and sketches. Two recent inter-related trends have contributed to a move to more virtual interactions. Firstly, technology has evolved at a rapid rate. Email, the internet and, to a lesser extent, videoconferencing have all impacted on this domain. Of more importance to the design process are recent developments in networked three-dimensional virtual worlds and high bandwidth communication technologies. These developments in information and communication technology (ICT) have altered the expectations of designers and the boundaries of their interactions. Introducing ICT into industry and business has allowed activities to occur at a distance, providing opportunities for globalisation and expansion across international boundaries.

Secondly, the increase in globalisation has affected business activities. It is not uncommon for international and multi-national companies to have a head office in one country and other offices worldwide. In fact, eighty-five percent of international managers conduct more than half their work in global teams (Maznevski & Athanassiou, 2006). Industry is becoming evermore globalised as organisations endeavour to streamline and optimise their operations. It is debatable whether an organisation would resource a specific process internally if it were economically advantageous to outsource it. Also, only when ideas are shared and worked on may delays be avoided and superior products eventually be created (Maher, Simoff, & Gabriel, 2000). However moves to allianceing and partnering (emerging novel contractual arrangements for procuring buildings) have resource implications, particularly in terms of time and money. These arrangements necessitate close liaison between designers, contractors and sub-contractors which contrast with more traditional procurement arrangements. The costs associated with convening a co-located team meeting in such circumstances include travel and accommodation.

These two trends have set the scene for research into the nature of collaboration in professional design teams in these new virtual worlds.

The research reported in this chapter was part of a larger project led by the University of Sydney, Australia, and conducted in collaboration with several industry partners. It was funded by the Australian Government-funded Cooperative Research Centre on Construction Innovation (CRC CI) and investigated the effect of new technologies on design collaboration in working environments. The focus of our part of the project was the examination of the ways in which people contribute to the effectiveness of virtual teams. It investigated the skills needed for different forms of collaboration in virtual environments and determined the knowledge and skills that team members need to participate effectively in virtual environments. A critical aspect of team collaboration is obviously communication and this is true regardless of whether interactions occur face-to-face or in virtual environments. Communication in design teams is the prime focus for this chapter.

Design Teams

The construction industry is acknowledged as being a people/team industry. Teams are described as a cluster of two or more people usually occupying different roles and skill levels that interact '…adaptively, interdependently, and dynamically towards a common and valued goal' (Salas, Burke, & Cannon-Bowers, 2000, p. 341). Such teams provide the vehicle for the process of collaboration (Beyerlein, Freedman, McGee, & Moran, 2003). The use of teams with a diverse mix of professionals (i.e. designers, engineers, surveyors, contractors etc.) with a range of backgrounds and experiences has long been recognised as requiring good management and facilitation to achieve successful outcomes. As design projects become more complex, relationships, roles and responsibilities have become more varied and challenging. Collaborative teamwork in a construction context refers to a short-term alliance between parties and companies for a single project. Team members may collaborate in the same physical environment but may also work with individuals in diverse physical locations (different cities/countries). Various authors have provided numerous and varying definitions of teams working in these environments. For the purposes of this paper we have defined virtual teams in the following ways:

- Co-located - comprising individuals who work together in the same physical location and are culturally similar.
- Virtual - comprising individuals who have a moderate level of physical proximity and are culturally similar, e.g. team members who are in the same building but on different floors.
- Global - comprising individuals who work and live in different countries and are culturally diverse.

Shifting from co-located teams to virtual and global teams is becoming common. In the latter environments, team members may collaborate in the same physical location but may also work with individuals in diverse locations and from different cultural backgrounds. Clients increasingly demand higher quality and efficiency from their design and construction service providers, thus prompting teams to be assembled from more diverse geographical locations (Kimble, Li, & Barlow, 2000). Furthermore, those teams working in virtual environments are responsible for making and implementing decisions of critical importance to an organization's global strategy and survival (Maznevski & Chudoba, 2000).

Virtual Teams

Several advantages are used to justify using virtual teams. These include:

- Increased efficiency as less time and money are used in traveling.
- A shorter production life cycle as work is completed in parallel rather than sequentially.
- Ease of augmentation as the amount of knowledge and expertise on a particular project can be increased by engaging resources from remote locations.
- Areas of error or weakness are often highlighted because people from different cultures need to work hard to understand each others' project concepts. In this context it is argued that multi-cultural teams outperform homogeneous teams (Stempfle & Badke-Schaub, 2002).
- Travel is obviated and therefore remains unaffected by world instability (such as 9/11) or global/country-specific economic factors.

Proponents of virtual systems argue that these factors lead to increased client satisfaction.

Notwithstanding the advantages noted above, virtual teams present several challenges. Firstly, virtual teams minimise personal contact between individuals, making it difficult for those concerned to respond to social cues and body language. In F2F meetings all contextual cues can be used including body language, eye contact, and gesture. These give information about the person speaking, how the message is conveyed, and the success of the communication (Driskell, Radtke, & Salas, 2003). In the absence of such cues significant misunderstandings may occur which can lead to inter-group conflicts (Riedlinger, Gallois, McKay, & Pittam, 2004). Secondly, there is frequently a lack of a leadership hierarchy within remote groups. It may not be clear in virtual teams who the leader is. Thirdly, the extent of the technology and the level of technical expertise available to virtual team members may vary (Dube & Pare, 2004). Virtual teams are reliant on technology; any fault in a system may result in communication being problematic or non-existent. Fourthly, virtual team members frequently need to collaborate, notwithstanding the different management and organisational strategies their respective organizations adopt. This situation is exacerbated as knowledge about managing traditional teams is not necessarily applicable to virtual ones (Saunders, 2000). Furthermore, virtual teams may bring together different organizational cultures (Karolak, 1998). Fifthly, complexity increases with the number of organisations involved (Dube & Pare, 2004). The sixth challenge is that the length of time a team has functioned together as well as prior shared work experience, impacts on how effectively a team functions (Dube & Pare, 2004). Finally, different cultures and languages can amplify problems of communication and collaboration (Townsend, DeMarie, & Hendrickson, 1998). Team members from different language and/or cultural groups may vary in terms of their communication and group behaviour (Jarvenpaa & Leidner, 1998). This contributes to greater complexity, and it may be more difficult to establish trust between virtual team members (Jackson, 1999).

Communication During Design Collaboration

Within the context of a team involved in producing a design, a key criterion for a successful outcome is their ability to communicate effectively. In fact, working in a virtual environment has the most pronounced effect on the communication domain and this in turn affects all other team domains (e.g. trust, roles, leadership, decision-making etc) (Geroy, Hartman, & Olson, 2002). Any adjustment made to communication is felt throughout all other team domains. Design involves communication and interaction between individuals and groups in complex social settings. The social character of design activity cannot be separated from the technical results. It is argued that design can be seen as "social construction of a technical reality" (Minneman, 1991, p. 63).

Design necessitates individuals establishing a shared understanding. Such common ground is built and rebuilt through the moment-to-moment interactions of the team members (Larsson, 2003). In a virtual team, members may take longer or have difficulty in establishing shared knowledge and this can inhibit mutual understanding (Dube & Pare, 2004). It is challenging to negotiate shared understandings between people from different professions, cultures, languages and educational backgrounds. Negotiation is an active process which team members need to engage in and several tools may be used to communicate ideas and information, such as:

- Speech and language.
- Non-verbal communication e.g. gesture, pointing, drawing in the air, etc.
- Social cues.
- Artifacts: use of objects such as models or using other objects to help an explanation e.g. using pens and rulers to indicate walls, stairways.
- Drawings, in a range of forms from impromptu sketches, additions to existing drawings to complex and detailed technical drawings and photographs.

The design team context is a dynamic environment which requires participants to have access to the full range of verbal, textual and visual mediums for successful design collaboration.

Despite the potential attractions of virtual environments, participants need to be aware of changes in communication that the medium imposes. Some of the key challenges highlighted in previous research include:

- Virtual environments may reduce the number of social interactions between team members (Gabriel & Maher, 1999).
- There may be a tendency to conform and members may not share as much relevant information when making decisions (Geroy et al., 2002).
- The use of non-verbal communication may be problematic. Even when interacting using visual capabilities (i.e. video conference or web cameras), the ability to communicate using non-verbal interactions (body language) can be inhibited (Hoyt, 2000).
- Virtual teams may present difficulties when sharing visual information (Gabriel & Maher, 1999; May & Carter, 2001; Poltrock & Engelbeck, 1999).

Notwithstanding the above, the use of technology can hold some advantages when communicating over distance. These include:

- These technologies often allow more focused and concise information exchange between team members (Gabriel & Maher, 1999; Maher et al., 2000).
- They may assist team member to adhere to specific tasks (Cleland & Ireland, 2002).
- They may be more task-oriented or task-related because they require formality of structure (Geroy et al., 2002; Qureshi, Bogenrieder, & Kumar, 2000). Personal and social elements of interaction are reduced.

It is important to note that the nature and type of virtual environment and the means of computer communication varies considerably. Communication between team members will be variably affected depending on the type of information technology used. Furthermore, group members experience and ability to use the technology will also have an effect on how they communicate with each other. Some environments are richer in that they can allow immediate feedback, multiple modes of communication and the opportunity to transmit emotions (Dube & Pare, 2004).

ANALYSIS OF COMMUNICATION

The linguistic analyses used in this research are derived from systemic functional linguistic (SFL) theory (Halliday & Matthiessen, 2004). This is a sociolinguistic theory focusing on language in use and presents language as a system of options or resources which are available to speakers for making meaning. Thus SFL is the study of how people exchange meanings through the use of language and language not only exists but must be studied in context. SFL has been used to analyse the functional use of language in a wide variety of interactive and team situations. A few examples are classroom teaching (Lukin, 1995), team interaction in hospitals (Iedema & Scheeres, 2003; Slade et al., 2008) and in trade bargaining simulation (Carr, Cox, Eden, & Hanslo, 2004).

Two SFL methods of analysis were selected to evaluate the communication occurring in teamwork. Firstly, exchange structure analysis was used to examine the exchange of information (which is critical to an efficient and productive design process). The second method was politeness markers, an important aspect in building teamwork, which stress the importance of considering design as part of the social world.

Exchange Structure Analysis

All interactions are based around the demanding and giving of information or of goods and services (Berry, 1981). In an exchange, information is either being requested or provided, or actions are being requested or provided (Martin, 1992). These are usually realised by the speech functions of statements, questions, offers and commands. These functions are mapped on to a unit of interaction which is called a move (Halliday, 1994; Halliday & Matthiessen, 2004). Each move is determined according to meaning so that a move may be one word or many, depending on its contribution to the meaning of the interaction.

Exchange structure analysis has two types of moves:

1. *Synoptic moves* comprise the asking or providing of information/goods. These are the basic building blocks of the exchange of information or action (e.g. a person may simply give information or may ask for information from another person).
2. *Dynamic moves* are used to facilitate the negotiation of meaning. They can be provided actively (e.g. clarifying or checking) or by giving feedback that the information has been conveyed successfully (confirming or using backchannels such as *yeah, mmhmm* etc). These moves are used when the exchange of information is challenged or when speakers misunderstand each other.

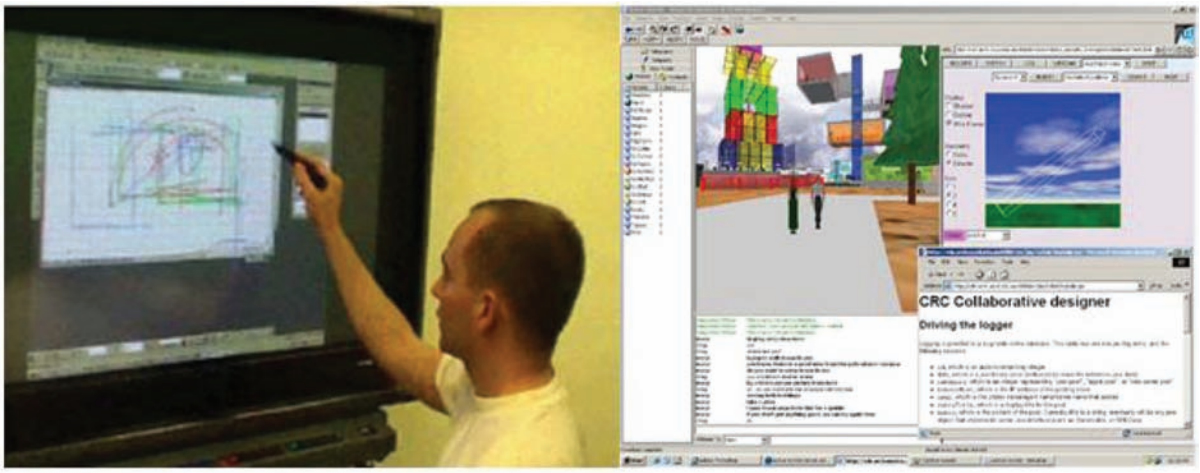
Synoptic moves are thus used when the communication of information progresses smoothly whilst dynamic moves are needed when communication breaks down. The choice of language that participants make during information exchange depends on the context of the situation. For example, the choice of language may vary depending on the mode used (e.g. more frequent confirmation statements or backchannels may be selected to overcome the lack of nonverbal communication during interaction on the telephone or in virtual worlds).

Politeness Markers

If team members are to develop a viable relationship with each other and effective interaction, they must make productive use of politeness theory. This theory, originally proposed by Goffman(1967) and elaborated by Brown & Levinson (1987), emphasizes the central role of face in interaction. Individuals use linguistic and behavioural strategies to present a positive self-image or face to the world and also support the work required by others interacting with them who also want to preserve their own face (Goffman, 1967). During interaction, team members are under the assumption that everyone involved will do whatever possible to sustain one another's face (Brown & Levinson, 1987); to do this, they draw upon linguistic politeness routines or markers. These politeness markers mitigate the face-threatening aspect and reflect the directness or certainty with which collaborators interact with each other. For example, a command may vary from more direct ("Open the door") to less direct, more polite forms ("Could you open the door, please?" or "Would you mind perhaps opening the door?"). These markers also reflect the range of uncertainty that lies between negative and positive (Halliday & Matthiessen, 2004). For example, the statements "You forgot to add that detail" and "I think perhaps you must have forgotten to add that detail" vary in directness. Using the SFL framework, these markers include the lexicogrammatical elements of mood and modality (modal operators and adjuncts, mood adjuncts, interpersonal metaphors, tag questions etc).

Politeness markers reflect the relationships between participants in the context in which they find themselves, and how information is exchanged to reflect the context (e.g. how requests are made, how responses are given and how miscommunication is managed). Politeness theory indicates that the form to be used must be appropriate to the situation and should reflect the power, distance and rank relationship between the hearer and speaker (Brown & Levinson, 1987). Thus the choice of language that participants use will reflect not only their relationship with each other (e.g. familiarity, status, role, competitiveness) but also the constraints placed on them by different conditions of ICT infrastructure.

Figure 1. (L) Participant using electronic whiteboard. (R) Screen image of 3D virtual world



The relationships established are critical to team building and trust within any situation. Effective design team collaboration requires trust-building between members. The use of politeness markers reflects the amount of trust that has been developed between collaborators. Although politeness markers reflect less direct communication and may therefore be less time efficient, they facilitate the communication of information by increasing the level of trust between collaborators. However, these markers can also provide a vehicle for asserting control and dominance (Iedema & Degeling, 2001) and establishing positions of power (Chen, Geluykens, & ChoiChong, 2006). An analysis of politeness markers indicates how the different ICT situations affect the communication used to establish and develop these relationships. It therefore indicates aspects of communication which hinder or facilitate team building within specific contexts.

The global nature of virtual teams inherently includes communication across cultures and language groups (Jarvenpaa & Leidner, 1998). In dealing with team members of different cultures, the directness or definiteness of utterances may be of additional relevance in team-building (e.g. Chinese and Japanese people tend to be less direct in their speech than Australians to avoid embarrassment)(Chen et al., 2006). Because of greater difficulty interacting in virtual environments, participants may use more direct language, resulting in more frequent breakdowns in cross-cultural communication. Gender may also affect the use of politeness markers as women tend to use more polite forms and less direct speech (Chen et al., 2006).

The aim of this research was to investigate the effects of bandwidth on the exchange of information and the use of politeness markers in construction design teams.

METHODOLOGY

Five pairs of participants were selected from architecture design staff using stratified purposive sampling (Rice & Ezzy, 1999) so that the diversity of gender, culture, language group, age, professional qualifications, company position and experience would be representative of design teams.

All pairs were videoed as they participated in each of three design sessions, using the following bandwidth levels.

- Traditional collaborative design using

Figure 2. Summary of methods of linguistic analyses

ANALYSIS	Explanation
Synoptic moves	Moves that request and provide information or action
Dynamic moves	Moves that keep the interaction going but may delay the completion of the exchange
- *Tracking moves*	Participants are able to agree on meanings
- *Challenging moves*	Participants do not agree and the interaction is suspended
Politeness markers	These reflect the directness or certainty with which collaborators interact.

widespread current synchronous communication and design tools, including simple face-to-face (F2F) interactions such as talking and sketching.

- Shared electronic whiteboards (WB) (see Figure 1(L)) which facilitated sharing of drawings, images and text. Also included were synchronous speech and visual communication via a web camera. The technology used an electronic whiteboard as part of conferencing via the internet.
- High bandwidth (see Figure 1*(R)*) where three-dimensional (3D) virtual worlds allowed team members to be represented by avatars[1]. Team members manipulated a 3D representation of a design using computer-based tools, with synchronous speech and visual communication taking place via 'chat' facilities.

All participants were trained for approximately thirty minutes in the functions and use of the equipment and software needed in each virtual environment.

One design brief (either a library, an art gallery or a dance studio) was presented to each pair of participants in each bandwidth condition. The participants were asked to discuss and develop the architectural aspects of a design using the technology available. Each session lasted for approximately 30 minutes.

The video data were coded using ethnographic software, Noldus Observer-Pro (Noldus Information Technology, 2004) which allows the on-line analysis of such data. Frequency in relation to time was the unit of analysis for both moves and politeness markers.

The two methods of analysis (described above) were used to investigate the data. A summary of the key features of each method is provided in Figure 2.

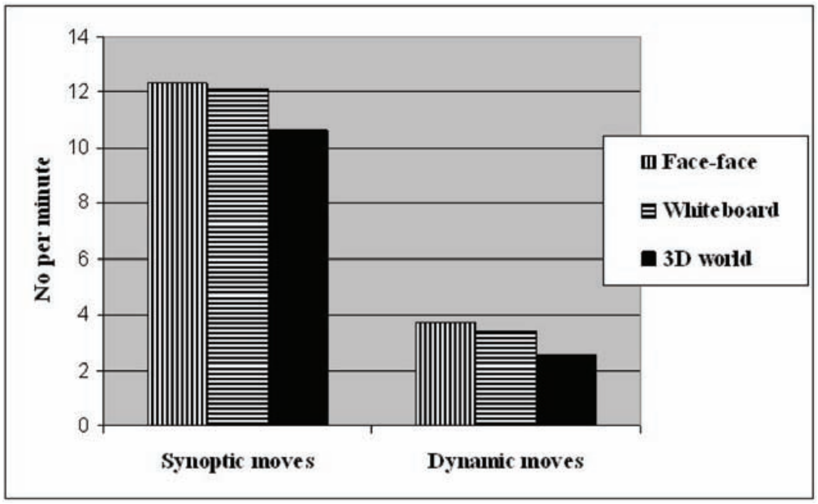
RESULTS AND DISCUSSION OF RESULTS

The data from team interactions in three conditions were examined in terms of two aspects: exchange structure analysis and politeness markers. The results from each analysis are presented and discussed separately.

Exchange Structure Analysis

A greater number of total moves per minute occurred in the F2F condition (80.56) than in the WB condition (68.85) and even less in the 3D setting (65.91). Therefore the least amount of interaction occurred in the 3D condition and most in the F2F setting. This reflects previous research findings that information exchange using ICT may be less frequent (Potter & Balthazard, 2002), more concise (Gabriel & Maher, 1999; Maher et al., 2000) and too slow (Geroy et al., 2002). In terms of trust building, high frequency, enthusiastic and proactive communication is reportedly one of the keys to establishing and maintaining "swift" trust (Jarvenpaa, Knoll, & Leidner, 1998; Jarvenpaa & Leidner, 1998). Swift trust needs to be quickly established in global virtual teams formed around

Figure 3. Total synoptic and dynamic moves in each condition



a common task with a finite life span (Jarvenpaa & Leidner, 1998). Trust has been shown to be eroded in virtual environments when communication limitations lead to team members stereotyping each other (Geroy et al., 2002).

Whilst the quantity of interaction is important in relation to trust-building, the efficiency with which information is exchanged and the amount of time spent repairing communication breakdowns is relevant to the progress of the task and the effectiveness of the team process.

Synoptic moves were used more frequently in the F2F condition than in the two virtual conditions (see Fig. 3). Therefore more information or action was requested or provided (relative to time) in the F2F situation. The frequency of synoptic moves may indicate the smooth exchange of information; in other words, information is provided clearly and, if information is requested, an appropriate response is given. The exchange of information has been demonstrated to be related to virtual team performance, team cohesion and decision quality (for review, see Potter & Balthazard, 2002) and effective teamwork depends on appropriate information sharing (Cramton & Orvis, 2003). The decreased information sharing in the two virtual conditions may be problematic for effective team performance; globally distributed teams working in diverse places would in fact need to share more information about themselves, their situations and the local context.

Participants also need to indicate that they have received, understood and/or accepted the information. Using backchannels (*uh uh, mmhmm, yeah, wow*) maintains an open channel of communication between the speaker and hearer and indicates active listenership (Young & Lee, 2004). Hawisher and Moran (1993) state that there is an intense need for response in computer-mediated communication due to the lack of nonverbal feedback (e.g. eye contact, head nodding). One of the major hurdles is ensuring that team members actually receive and understand a communication. Thus the lower number of synoptic moves in the virtual conditions reflects not only less provision of information but also less indication that the information given has been received by the other participant. Providing a response is also considered to be a trusting behaviour and demonstrates involvement, conveying intimacy and affection (Jarvenpaa & Leidner, 1998), although the frequency and type of response may vary across language and/or cultural groups (Young & Lee, 2004). Silence in response to a communication may be difficult to interpret (Geroy et al., 2002) and may result in the repetition of the information or a request for feedback.

The frequency of dynamic moves was greater in the F2F and WB conditions than in the 3D session (See Figure 3). Dynamic moves are used to perform the functions of negotiating meanings; this may involve the checking or clarifying the exchange of information or when speakers misunderstand each other and attempt to overcome or repair this communication breakdown. Not only were there fewer dynamic moves in total in the 3D condition, these moves also comprised a smaller percentage of the total number of moves used. Therefore, the amount of time needed for negotiating meaning and the repair of communication breakdown was smaller in the 3D condition. This is a surprising finding in that communication in the 3D setting could be considered to be more complex and more prone to misunderstandings. This will be discussed further below.

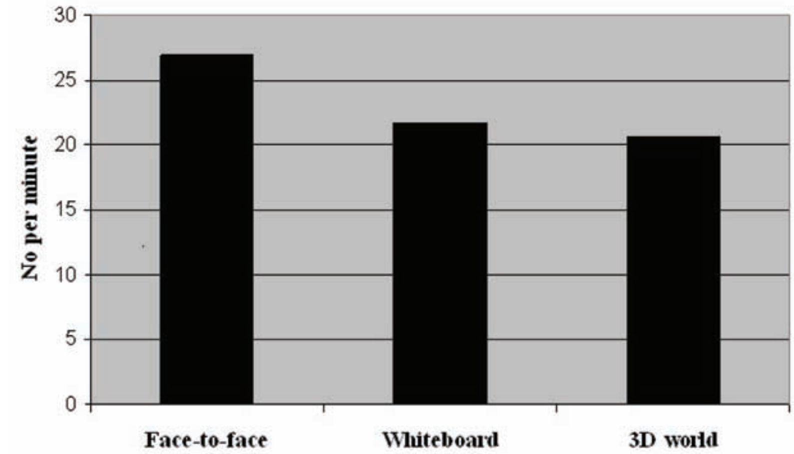
The number of dynamic moves falling into two categories (tracking and challenging) was also examined. Tracking moves, which indicate that the information has been conveyed successfully and also that the participants agree on the meaning being exchanged, occurred equally as frequently in the F2F and WB setting but less frequently in the 3D virtual world. Challenging moves, which indicate that the participants are not able to agree on the meaning of the exchange, occurred most frequently in the F2F condition. The relatively low incidence of both types of dynamic moves in the 3D condition may appear surprising. However, this may be explained by previous research which has noted that participants using computer mediated communication used a more commanding manner and gave more precise or abrupt instructions (Geroy et al., 2002; Newlands, Anderson, & Mullin, 2003). If information is exchanged in this way, there may be less need for interaction to negotiate meaning. Another possible explanation may be that if information provided in the virtual world is more confusing and jumbled and more difficult to follow (Geroy et al., 2002), team members may leave decisions to the leader/speaker. More detailed analyses of the data should shed more light on this aspect.

Politeness Markers

Politeness markers indicate the degree of directness used by the participants when interacting with each other. More markers were evident in the F2F setup than in the virtual conditions, as shown in Figure 4. So, even though the participants in the F2F setup were able to use nonverbal communication (e.g. facial expression, gaze, gesture), they indicated greater politeness to each other verbally than in the non face-to-face conditions. Politeness markers reflect the relationships set up in a context and also the constraints placed on the participants by the technology setup. A greater use of politeness markers may indicate the speaker's awareness of the power balance, familiarity and also the effect of the context. Thus the greater politeness expressed in the F2F may reflect the increased level of collaboration on information sharing. Although politeness markers reflect less direct communication and may therefore be less time efficient, their use will facilitate teamwork and trust between participants, particularly in multicultural or mixed gender teams.

It is surprising that the participants in the virtual environments, with their limited access to nonverbal communication, used fewer politeness markers. It is even more unexpected in the light of the fact that in both virtual conditions, they were able to interact using a web camera. However, as Hoyt (2000) has indicated, even in this type of environment non-verbal interaction may be inhibited. It could be hypothesized that the participants in the virtual environments would have at least used similar amounts of verbal politeness markers to compensate for the effect of the technology. It may be that more di-

Figure 4. Total politeness markers in each condition



rect and therefore less polite language was used more frequently in an attempt to overcome the difficulties in communicating clearly using the technology and also to overcome the distancing effect that the technology exerts. Thus there is a clash between the clarity of the message and the display of consideration to team members; the need to communicate clearly may be prioritized over politeness, resulting in teams lacking in trust and therefore performing poorly.

Both the decrease in polite language and in challenging dynamic moves in the 3D environment may reflect a leadership issue in the teams. The virtual work environment has been shown to result in centralized leadership (Geroy et al., 2002). Power is a central determinant of politeness usage. High status team members may use less politeness whilst their subordinates endeavour to stay in superior's good graces. Thus a team member may take over leadership early in the process, providing direct instructions to other members whilst they become less communicatively challenging in response to this. In the longer term, this may lead to team members contributing less of their expert knowledge to design processes. They may also feel less indispensable and essential for the team's success, as was noted by Geroy et al (2002), leading to less trust. Trust is an important component of all design teams as teams high on trust have been shown to be more successful in their interaction in communicatively-limited virtual environments (Jarvenpaa & Leidner, 1998).

RECOMMENDATIONS FOR DESIGN TEAM COMMUNICATION

To facilitate design team communication and teamwork, the following recommendations are suggested:-

- A key criterion for a successful outcome is the ability of team members to communicate effectively and therefore, the rate of information exchange in virtual environments should be similar to that of F2F settings. Common ground is built and rebuilt through the moment-to-moment interactions of the team members. Negotiation, which team members need to engage in to establish shared understanding, is an active process. The challenges to negotiation increase as team members build common ground with people from different professions, cultures, languages and educational backgrounds. Thus the need for interaction is constant in any collaborative team setting. Furthermore, to collaborate successfully, teams need to build trust and build it quickly. A high frequency of interaction has been found to establish trust (Jarvenpaa et al., 1998). The building of trust in remote teams may be more difficult to establish and therefore the amount of interaction is of even greater importance.

- Secondly, the quality and ease of information exchange needs to be taken into account. This study indicated that there was less negotiation of meaning in the 3D setting, suggesting that there was less need for checking, clarifying or repairing miscommunication. Whilst this may be a positive finding for the use of virtual technology, it must be considered in the context of less interaction overall in the 3D setting. Furthermore, participants may be more authoritative in their communication when using virtual technology (Newlands et al., 2003), possibly preventing other team members from challenging a decision or an action. However, for the building of trust and teamwork in virtual environments, as well as collaboration, team members should feel comfortable checking, clarifying and challenging the information provided to them.
- Thirdly, more frequent requests in the virtual setting reflect increased time spent obtaining the necessary information or action to continue. This may indicate that team members did not adapt to the conditions by increasing the information given to each other. The higher incidence of requests for action may reflect difficulties with the technology.
- Fourthly, providing feedback is a necessary mechanism in environments where there are no visual cues to indicate that communication is proceeding smoothly. Increased feedback will not only facilitate communication but also contribute to trust building.
- Finally, the need for verbal politeness markers should increase as non-verbal cues decrease. The use of these markers results in less direct communication but their use builds trust and may reflect an increased level of collaboration.

FUTURE RESEARCH TRENDS

Although this study was limited in number of participants, tasks and duration, it has provided sufficient data to highlight areas of future research. In contrast to 90% of published articles using student teams as participants (Powell, Piccoli, & Ives, 2004), this study has considerable merit in that the participants were architects and the tasks, although fictional, were feasible projects for a designated construction site.

Perhaps the greatest need at present is to investigate design teams in the real-world. Access to such teams has proved to be problematic due to commercial confidentiality concerns. A longitudinal study of a design team, moving through the different stages of problem-solving on a project, would provide invaluable data on how participants establish shared information, discuss alternatives and reach solutions. The development of trust and the changes in information exchange and communicative styles could also be analysed.

The virtual global team can be considered as an ever-increasing phenomenon. Despite this, our understanding of these teams is still at an "embryonic stage" (Dube & Pare, 2004, p. 1). The virtual work environment will continue to evolve further as technology progresses and each new virtual environment will provide additional facilitators and barriers to virtual team performance.

CONCLUSION

Using two linguistic analyses to investigate team interactions in depth has provided additional information, not only on communication in virtual teams itself but also on the contribution of communication to trust-building and collaboration. Only a fine-grained analysis of interaction can provide the type of information needed to determine the effect of virtual technology on communication in design teams. Sensitive, in-depth linguistic analyses provide such tools and are needed to determine how power, position, interest and control are established and maintained (Iedema & Degeling, 2001). Such analyses can also provide additional insights into the contributions of team members' personalities and interaction styles (Potter & Balthazard, 2002). Politeness theory is a useful model of how to communicate strategically; it can help to redirect our attention to what people should do or can do.

Collaboration in team work is not only concerned with the transmission of information but also with the building of trust. The more frequent interaction and increased politeness markers in the F2F setting are both factors found to contribute to trust building (Jarvenpaa et al., 1998; Jarvenpaa & Leidner, 1998). Teams which are high on trust have been found to be able to solve problems and resolve conflicts (Jarvenpaa & Leidner, 1998). If information-sharing fails, poorer-quality decisions may be made and trust will be damaged (Cramton & Orvis, 2003).

It is essential that designers understand the characteristics of the different environments in which they may find themselves working. In this context it is pertinent to note that current training usually focuses on the use of new software and hardware, rather than on the interpersonal communication skills that facilitate communication and collaboration. Specific communication skills may be needed for team members to function efficiently and effectively, particularly in virtual, high-bandwidth technological, environments. By examining the effects of technology on communication, the particular strategies which facilitate and hinder communication in different levels of technology setup can be ascertained. These strategies can then be incorporated into the briefing and training sessions provided to construction design teams as they move to greater use of WB, 3D and other technology.

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KEY TERMS AND DEFINITIONS

Global Design Teams: Designers who work and live in different countries and are culturally diverse.

Global Teams: Individuals who work and live in different countries and are culturally diverse.

Information Exchange: All interactions are based around the demanding and giving (i.e. the exchange) of information or goods and services.

Systemic Functional Linguistics: This theory focuses on language in use and presents language as a system of options or resources which are available to speakers for making meaning.

Virtual Design Teams: Teams of designers who have a moderate level of physical proximity and are culturally similar, e.g. team members who are in the same building but on different floors.

Virtual Teams: Teams of individuals who have a moderate level of physical proximity and are culturally similar, e.g. team members who are in the same building but on different floors.

ENDNOTE

1. A graphical representation of a person or character in a computer-generated environment, *esp.* one which represents a user in an interactive game or other setting, and which can move about in its surroundings and interact with other characters (Oxford English Dictionary Online. Retrieved 9.03.2009 at http://dictionary.oed.com/)

Section 2

Linguistic Forms and Structure

Chapter 15
Humor and Play in CMC

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ABSTRACT

This chapter summarizes the growing body of research on humor and play in computer-mediated communication (CMC) from disciplines such as psychology, applied linguistics, and foreign language acquisition that seeks to explain the abundance of humor and language play in computer-mediated communication. Humor researchers, for example, have shown how the absence of the nonverbal repertoire in CMC may encourage play while, at the same time, making it more difficult to signal a joke. From the perspective of computer-mediated discourse analysis, certain linguistic and interactional features of computer-mediated discourse may promote non-seriousness (Herring, 1999). Another strand of research focuses on the social functions of humor in constituting and maintaining online communities (Hübler & Bell, 2003). The emerging picture of language play and humor in CMC is becoming clearer but, at the same time, increasingly complex.

INTRODUCTION

More than other media, digital communication has been associated with humor, joking, language play, role play, and other nonserious communication (e.g., Belz & Reinhardt, 2004; Crystal, 2001, 2008; Daisley, 1994; Danet, 1998, 2001; del-Teso-Craviotto, 2006; Fisher et al., 2000; Georgakopoulou, 2005; Hancock, 2004; Herring, 1999, 2001; Kopomaa, 2005; Nastri et al., 2006; North, 2007; Rellstab, 2008; Rouzie, 2001; Sotillo, 2000). Because of its central role in human interaction, different strands of research from disciplines such as psychology, applied linguistics, and foreign language acquisition have sought to explain the abundance of humor and language play in computer-mediated communication (CMC). The present chapter surveys

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this growing body of research on verbal humor, spontaneous joking, and play in CMC-based environments.[1] Following a working definition of the notion of play, the chapter discusses different types of humorous discourse in CMC. It then summarizes how different CMC modes and their contexts of use affect language play. In view of the rapid growth of digital communication, its potential as a creative medium, and the accompanying changes in social interaction, the chapter aims to outline and synthesize research on verbal humor and play in CMC and thus provide a snapshot of what we know and do not know thus far. The emerging picture is complex and, in many ways, unexpected. A number of empirical studies of humor and play in CMC have produced surprising results. For example, Baym's (1995) early study found that CMC, conceived as a tool for transactional workplace functions to distribute information and increase efficiency, was found to be surprisingly hospitable to humor. Along the same lines, Hancock's (2004) study also shows that CMC participants use irony more frequently than in face-to-face (FTF) interaction, even though irony is assumed to rely on subtle cues that are unavailable in CMC. These two studies are mentioned here to exemplify how emerging research findings continue to challenge widely held beliefs.

To a large extent, research on humor and play in CMC mirrors that on CMC in general. First, researchers continue to explore in what way the digital media change language use, including humorous discourse. Examples include Hancock's (2004) study on CMC irony cues or Vandergriff & Fuchs' (under review) study on CMC humor support. A second strand of research is asking how people overcome the perceived inadequacies of the medium and adapt the new technologies to social interaction (see, e.g., Walther, 2004), where humor plays a central role in attaining relational goals. Much of the CMC research is thus in line with more broadly conceived communication theories (e.g., Clark & Brennan, 1991; see also Herring, 2001). As people move between semiotic systems, they adapt their use of the language to the communication tool and the objective(s). Beyond a better understanding of CMC as such, the study of new media promises to yield fruitful results because, ultimately, looking at language and interaction "through the lens of new tools" (Walther, 2004, p. 386) can focus our attention on aspects of language and social interaction that have either been hidden from view or lost in the sea of data produced by speech interactions. Rather than viewing text-only CMC as a restrictive or impoverished medium, the "worlds of words" (Marvin, 1995) of CMC provide researchers a way to look at language as an interactive unimodal system "without the 'noise' of physical appearance, bodily co-orientation, proxemic management, vocal pitch, cadence, and quality, and numerous other cues that are part and parcel of speech but that are absent in the online universe" (Walther, 2004, p. 388). In this way, the study of humorous discourse in CMC may yield new insights into the inner workings of humor and play in language and social interaction.

HUMOR AND PLAY

Humor can be defined as anything that is "funny, amusing, or laughable" (Attardo, 2005, n. p.). Verbal humor has often been discussed under the larger heading of 'language play,' a term which subsumes "a range of normally dissociated activities" (Cook, 2000, p. 5) such as children's verse, fiction, insulting, joking, magical rituals, puns, riddles, and play languages. Such language play activities are all "expressions of a single underlying phenomenon" (*ibid.*), which Cook describes as "disconnection from reality, disruption and subversion of social structures, and the introduction of random elements" (*ibid.*). Language play may or may not be humorous, but humor is often viewed as a form of play (e.g., McGhee, 1979). Whereas both play and humor may be planned (e.g., a game) or even "canned" (e.g., a joke), respectively, this chapter will focus on spontaneous humorous play, different types of which have been identified in CMC, including form-based play, i.e., playing *with* language, and pragmatic play, that is, playing *within* language. While certain contexts, e.g., role play scenarios or gaming environments, may promote humor and play, this chapter will focus on verbal play that emerges spontaneously in interaction in all types of CMC environments.

Even in humorous language play, humor is sometimes concomitant with aggression and resistance, respectively (Cook, 2000). For example, in verbal dueling, i.e. exchanges of "clever and intricate insults and boasts, in storytelling competitions, or the setting of verbal puzzles such as riddles" (Cook, 2000, p. 65), a ritual insult can cause offense to the opponent and at the same time raise laughter and increase the sense of solidarity. Pointing to parallels between athletic contests and verbal duels, Cook (2000) states: "Like sporting contests, verbal duels may be a prelude to violence […]" (Cook, 2000, p. 64). Yet, competitive ball games and verbal duels both depend on a degree of cooperation, i.e., participants typically both accept shared conventions. Moreover, violence is limited or symbolic. Other researchers have gone further and claimed that humor is typically hostile or aggressive because, in their view, laughing *with* somebody mostly means laughing *at* somebody else (e.g., Rapp, 1951; Morreall, 1983, as cited in Cook, 2000, p. 71; italics in original). By the same token, Cook emphasizes that the use of humor does not always have "to assert superiority or drive home a victory," as in the case of "'loser's humor'" (Cook, 2000, p. 72; quotes in original). In other words, humor is then used as a means of rebellion, resistance to tyranny, or as compensation for defeat. In short, previous research has shown that humor can be affiliative and/or hostile, domineering and/or submissive (see Vandergriff & Fuchs, 2009).

TYPES OF LANGUAGE PLAY IN CMC

Form-based language play can be defined as the manipulation of linguistic form (Crystal, 1998). Research on form-based play in CMC-based environments (e.g., Belz, 2002b; Belz & Reinhardt, 2004; Crystal, 2008; Derks et al., 2008a, 2008b; Holcomb, 1997) has identified play with derivation, play with nominal compounding, play with orthography, and revoicing of salient bits of language, all of which appear to be motivated by linguistic creativity. The absence of nonverbal distractions in CMC may also raise participants' metalinguistic awareness (e.g., Georgakopoulou, 2005), leading to such play and joking. In texting (SMS), for example, Crystal (2008) reports the use of logograms (*b4* 'before,' *@toms* 'atoms,' or German *8ung* '*Achtung*' = 'attention'), pictograms such as Japanese (*o*) 'surprised' and (^_^) 'cute,' or other emoticons such as:-) 'smile,' ;-) 'wink,' and:-@ 'screaming' (p. 38). Initialisms, other abbreviations and nonstandard spellings, more frequent in texting than in other CMC[2], can also be used playfully. Crystal, for example, reports on a play that builds on the well-known initialism: *IMO* ('in my opinion') to *IMHO* 'in my humble opinion,' *IMCO* 'in my considered opinion,' *IMHBCO* 'in my humble but correct opinion,' to IMNSHO 'in my not so humble opinion' (Crystal, 2008, p. 53). This usage is considered playful because it creatively uses familiar materials and principles, "upping the ante" (Crystal, 2008, p. 53) by varying and/or progressively extending the initialisms.[3] Pushing for investigations of play beyond linguistic form, researchers in second/foreign language learning (Cook, 2000; Warner, 2004; Vandergriff & Fuchs, 2009; *inter alia*) have been making the case for a broader research agenda on foreign language play. In her 2004 article, Warner contends that "greater attention must be paid to playful elements in language use that are not limited to the linguistic form" (p. 81). For example, when learners play with the frame, they are not playing with linguistic form or semantic meaning. Instead, pragmatic play uses language in unexpected ways at the level of understanding and does not reveal itself in the linguistic form. A sarcastic remark, for example, states the opposite of its intended meaning. Typically, contextual factors provide important clues that the speaker is shifting to play mode. From this perspective, any rekeying is a form of pragmatic play (Warner, 2004).

Among the different types of pragmatic play, identity play has received a lot of research attention. Identity play encompasses play with social, relational, or individual identity such as participants' manipulation of "roles, positions, relationships, reputations, and other dimensions of social personae" (Ochs, 1996, p. 424). CMC-based environments appear to provide participants with increased opportunities for such play (Baym, 1995; Belz & Reinhardt, 2004; Warner, 2004). For example, MUDs (Multiuser Domain or Dungeon) and MOOs (Multiuser Domain or Dungeon Object-Oriented) are online gaming environments that encourage participants to role-play and take on new identities (e.g., Rellstab, 2007; Warner, 2004). In the process of playing, users frequently assume multiple identities, such as an opposite-gender or even nonhuman identity (Turkle, 1995; Warschauer, 1995, as cited in Levy, 1997). Turkle (1995) hypothesizes that this kind of identity play allows people to better understand hidden aspects of themselves due to the freedom which comes with the anonymity of the Internet: "The Internet has become a significant social laboratory for experimenting with the constructions and reconstructions of self that characterize postmodern life. In its virtual reality, we self-fashion and self-create" (1995, p. 180). Research suggests that online communication participants may overrate minimal cues, especially if they have never met face-to-face. This "'overattribution' process" (Walther 1996, p. 18; quotes in original), in turn, facilitates the projection and manipulation of identity and thus may foster identity play. Additionally, Walther (1996) claims that "not only do CMC senders overcome the limits of the media to express personal cues, they may actually do so in ways that F2F communicators cannot" (p. 19). Other studies, however, suggest that CMC does not always promote identity play (e.g., Chester, 2004; Herring, 1996; Huffaker & Calvert, 2005; Yates, 1997). Along the same lines, a recent study of different types of language play (Vandergriff & Fuchs, 2009) showed that the medium alone does not always produce a significant differential effect on the types and tokens of language play participants produced. While there is some emerging evidence that the faceless digital environment may foster some types of play in some settings (e.g., identity play in synchronous CMC), much work remains to be done to account for different types of language play and humor in the various Internet communication tools.

FUNCTIONS OF PLAY/HUMOR/CMC

Humor and language play are generally taken to be multifunctional. Beyond fun and amusement (e.g., Tarone, 2000), humorous discourse serves a range of social functions. Because social identity is taken to be co-constructed and emergent (e.g., Archakis & Tsakona, 2005, p. 42), discourse, in general, and humorous discourse, in particular, play important roles in a range of social functions, including self-representation, group-building and attaining relational goals. In fact, humor is so central to face-to-face interaction that it has been labeled "vocal grooming" (Dunbar, 1996). Regardless of the medium, humorous discourse helps shape social structures by defining or sustaining "shared group identities" (Seckman & Couch, 1989, as cited in Robinson & Smith-Lovin, 2001, p. 127; Yarwood, 1995), or by demarcating the boundaries of a group (Holcomb, 1997, p. 9; Martineau, 1972, p. 103). Focusing on one specific strategy for group building, Archakis and Tsakona's (2005) study involving Greek adolescents puts the spotlight on humor targets. They found that making fun of out-group individuals and institutions reinforced the group's solidarity and cohesion (Archakis & Tsakona, 2005; see also Holmes & Marra, 2002; Hübler & Bell, 2003), whereas rejecting a humor target can function as a social corrective (Archakis & Tsakona, 2005). Through their acceptance and rejection of humor targets, participants signal, reinforce, or confirm their group membership. In the process, the ethos of the group as a whole is negotiated "so that eventually the humor of individuals in a group reflects the ethos of the group as a whole" (Hübler & Bell, 2003, p. 293). In this way, humor and language play may be viewed as a discursive strategy "by means of which people can construct their situated sense of social identity" (see Holmes & Marra 2002, p. 378; cited in Archakis & Tsakona, 2005, p. 42). Social theories of humor thus highlight the dynamic relationship between humor and social group. Humor emerges through the group's collective experiences while, at the same time, humor constitutes, affirms, and sustains group ethos and social identities (Holcomb, 1997; Holmes & Marra, 2002Hübler & Bell, 2003; Martineau, 1972; Ziv, 1984).

If verbal humor and play are a powerful force on social identity in multimodal face-to-face interaction, the absence of other channels of communication may magnify its influence. Adapting social theories of humor to CMC, Hübler and Bell (2003) claim that "a virtual context amplifies the constitutive power of humorous discourse because, at least in text-based CMC, where discourse encompasses the entirety of a group's online interactions and experiences […]" (Hübler & Bell, 2003, p. 281). In fact, Hancock (2004) submits that the absence of other channels may explain the abundance of humor in online interaction. Because CMC limits participants to the verbal channel, verbal humor becomes an important tool for relational goals, as predicted by Walther's (1992) Social Information Processing theory. From this perspective, the increased frequency of verbal humor and play can be viewed as a compensatory strategy (Nastri et al., 2006). These findings are aligned with the main results of a 1998 research review of social identity in CMC that showed that within groups that share a common social identity, individuals may be more susceptible to group influence in CMC than in FTF (Postmes, Spears, & Lea, 1998). These findings put in question early notions of CMC's power to break down social boundaries. While it is true that CMC allows participants easy access to participants across national, cultural, and social boundaries, the medium may ultimately help reinforce these boundaries (Postmes, Spears, & Lea, 1998). Overall, the effects of different social contexts on the use of humor remain underexplored, in part because existing research falls short of accounting for the complex multimodality that often characterizes CMC participants' interactions. While some CMC dyads and groups interact exclusively online in a text-based environment, many online discussion boards and social networking websites allow users to post pictures, for instance. Even exclusively online contact may involve multiple channels. Moreover, many groups do not only have online contact. Instead they interact in hybrid environments that allow them to move from face-to-face to online communication, such as we may find among colleagues in the workplace.

Language-focused approaches have noted the correlation between features of the CMC medium and the presence of language play and humor, suggesting a causal link between the two. At the same time, there is widespread agreement that joking seems to be more difficult in a faceless environment because spontaneous language play is rarely flagged overtly by linguistic markers such as an explicit "just kidding." In FTF, instructions to other conversation participants on the "tone, matter, or spirit" (Hymes, 1972, p. 57) of the speech act will typically be more subtle, involving markers, or "contextualization cues" (Gumperz, 1982) such as "stylistic deviations, laughter, prosodic or mimetic cues" (Kotthoff, 2006c, p. 274). This notion of keying or rekeying (Goffman, 1967; Hymes, 1972, 1974; Kallmeyer, 1978; Davies, 1984; Straehle, 1993; Norrick, 1993) is thus crucial to the understanding and analysis of conversational humor. In text-only CMC, situational, gestural, mimetic, paralinguistic or other nonverbal cues are lacking (Wainfan & Davis, 2004; see also Davies, 1984; Goffman, 1967; Hancock, 2004; Hymes, 1972, 1974; Kallmeyer, 1978; Norrick, 1993; Straehle, 1993), making it more difficult for computer-mediated communicators to signal a joke and to understand it. There appears to be widespread agreement that emoticons translate nonverbal cues of oral interaction into text-based CMC. Specifically, a number of studies have claimed that humor may be cued via emoticons such as a:-) 'smile,' ;-) 'wink,' or:-('frown' (e.g., Crystal, 2008; Danet, 2001; Derks et al., 2008a, b; Lo, 2008), which, according to Danet (2001), can signal nonserious intent. What is more, early accounts of the development of CMC from serious to playful purposes underscore the role of emoticons (Danet et al., 1997; see also Bolter, 1991). Emoticons may indeed serve some of the same functions as nonverbal cues in face-to-face interaction, even though they lack both "range and nuance" (Hancock, 2004, p. 450) compared to nonverbal cues in face-to-face interaction. One line of research has explored what exactly emoticons contribute to the verbal message. In a recent study, Derks et al. (2008a) found that an emoticon could not only complement, as previous studies (Walther & D'Addario, 2001; Hancock, 2004) had shown, but could also enhance or strengthen a verbal message. Specifically, they found that "a negative verbal message coupled with a smile emoticon conveys greater sarcasm than a positive or a negative pure message" (Derks et al., 2008a, p. 382). Interestingly, no study has found that emoticons can change the valence of a negative or positive message. By the same token, emoticons are not always used in CMC, even in the context of humor and language play. In texting, where emoticons are more frequent than in many other forms of CMC (Crystal, 2008; Ling & Baron, 2009), some groups of users refrain from emoticons altogether. Crystal, for example, reports that older teenagers are reluctant to use smileys (:-)) because they consider them "childish" (Crystal, 2005, p. 22), a term that may, in this context, connote the perceived lack of subtlety and sophistication. Even in instant messaging, which seems more hospitable to emoticons – Skype makes 64 emoticons available to its users –, emoticons are relatively rare (e.g., Ling, 2005). In fact, Hancock (2004) reports that chat participants used more ellipses to mark ironic intent than emoticons, a finding likely to trigger further inquiries into the role of punctuation in CMC humor. His results thus confirm what other empirical studies have found. In sharp contrast to widely held beliefs of their ubiquity, emoticons are fairly rare in most CMC environments. The mounting evidence also puts into question any claim to their compensatory function as "quasi-nonverbal cues" (Lo, 2008, p. 595) in the CMC system. Hancock suggests that emoticons do not appear frequently in CMC because they are too obvious as markers for irony and other types of humor that rely on subtlety. The converging evidence on the relative rarity of emoticons (e.g., Crystal, 2005; Vandergriff & Fuchs, 2009) begs the question as to how humor cues are encoded in CMC. In some contexts of use, punctuation may play a larger role. Irony, for example, may also be signaled through ellipses (Hancock, 2004). Surprisingly, the reduction of the conventional repertoire of humor cues in CMC does not appear to discourage CMC participants from joking. Hancock's (2004) findings of increased irony in CMC compared to FTF conditions is consistent with the vast majority of studies which attest to an abundance of verbal humor and play in CMC where, paradoxically, it appears to be more difficult to signal nonserious intent. Ultimately, the seemingly paradoxical findings cast doubt on CMC's perceived inadequacies.

Aside from the monomodality of (text-only) CMC, several other factors associated with CMC including "ephemerality, speed, [and] interactivity" (Danet et al., 1997, n. p.) may promote playfulness. Specifically, the more "relaxed norms of coherence" (n. p.) in CMC, Herring (1999) argues, foster language play. She states that "[i]t is not surprising that a weakening of relevance norms would invite humorous play. Jokes violate Gricean conversational maxims by definition, and relevance is the most basic of Grice's four maxims" (n. p.). Oral and computer-mediated communication differ in terms of the sequential context. In oral interaction, the prior turn is relevant to the interpretation of an utterance. Empirical studies (Garcia & Jacobs, 1998, 1999; Herring, 1999) of CMC have shown that adjacency pairs in CMC are frequently disrupted. The turn-taking system of synchronous CMC is different from face-to-face interaction. For instance, in face-to-face interaction an utterance produced after a request will first be interpreted as a response to the request, i.e., a grant or a denial. In synchronous CMC, this interpretation could be wrong because participants do not have as much control over the sequencing of utterances as in FTF. Such "phantom adjacency pairs" (Garcia & Jacobs, 1998) appear next to each other and seem to have a first and second pair part but actually turn out to be coincidentally adjacent messages. The difficulty in interpreting messages in their sequential context thus arises from the fact that turn sequencing is partly user-controlled and partly system-controlled. The same feature also leads to disrupted turn adjacency pairs as other strands of the conversation get inserted between adjacency pair parts. In fact, in her discourse analysis of CMC, Herring (1999) goes as far as to say that "violations of sequential coherence are the rule rather than the exception in CMC" (n. p.). Herring submits that there may be a direct causal link between the lack of coherence in synchronous CMC and its propensity for language play. In doing so, she goes beyond a description of synchronous CMC and asks what it is about synchronous CMC that may explain its propensity for language humor and play. Herring argues that CMC violates a conversational maxim, namely the maxim of relevance that states that a speaker's contribution must be on the current topic (Grice, 1975, 1978, 1989). Such a weakening of relevance as is unavoidable in CMC will trigger other violations of relevance, such as joking. According to Herring (1999), a sarcastic remark, taken at face value, will violate the maxim of relevance. Only when the listener recognizes that the remark does not make sense at face value because it would violate the maxim of relevance, is a reinterpretation in play mode prompted. At that point, the listener eliminates the face value interpretation and understands the intended meaning. Herring thus claims that the violation of one type of relevance norm would invite the violation of another but she does not elaborate on *why* this might be the case. A decade later, there is no evidence yet for a causal link between a reduction of textual coherence and an increase in humor. In sum, previous research suggests that synchronous CMC is associated with a reduction of coherence, disruption of turn adjacency and phantom turn adjacency, which may, according to Herring (1999), lead to language play.

Spontaneous verbal humor and play is not restricted to synchronous forms of CMC. Asynchronous CMC, such as email or discussion boards, which lacks the speed and ephemerality, but not the interactivity of synchronous CMC (Danet, 2001), has been associated with an abundance of nonserious discourse. Even electronic mailing list messages show evidence of spontaneous humor because, like their oral or synchronous CMC counterparts, they are "created out of ongoing discourse" (Mulkay, 1988, p. 63, cited in Hübler & Bell, 2003, p. 279). However, the fact that asynchronous CMC lacks the speed and ephemerality of synchronous CMC may foster more carefully crafted or sophisticated humor tokens as well as more careful reading in asynchronous CMC (Hübler & Bell, 2003). Furthermore, access to archives allows participants to review and build on previous humor tokens, extending the humor in their responses (Hübler & Bell, 2003).

One of the pioneers of CMC, communication researcher Brenda Danet (2001), attributes the abundance of play in part to a prevailing online culture with roots in hacker culture. Based on her claim that "playfulness is absolutely central to what hackers do and how they perceive themselves" (Danet, 2001, p. 26), she argues that hackers love to play with computer programs and with language, presumably because both are perceived or construed as acts of transgression. Since humor emerges out of collective experiences and interactions, it is not clear that the practices of one group have a direct effect on another. For example, assuming that there is no interaction between the groups, it seems doubtful that an email list devoted to social issues would be more humorous because of the hacker culture. In fact, we have ample evidence that humor cannot be separated from the group or from the participating members because humor is embedded in shared knowledge, shared codes, and shared emotional significances, all of which provide its meanings and determine its appropriateness (Vandergriff & Fuchs, under review; see also Chiaro, 1992; Oring, 1992; Palmer, 1994 as cited in Baym, 1995). Thus humor is unlikely to be a fixed characteristic of the online culture. Instead, it develops spontaneously in the course of group interaction. Studies of online and FTF responses to humor tokens provide convergent evidence that humor emerges dynamically in discursive interaction. Speakers frequently signal humor appreciation by incorporating or building on the play frame, which can trigger further elaboration in a chain of humor, with humor begetting more humor. In this way, participants co-construct humor sequences. Adapting the conversation analysis of humor sequences to synchronous CMC ("chat"), Vandergriff and Fuchs (under review) conclude that CMC participants in their study used verbal strategies of humor support similar to those described for oral interaction (Hay, 2001). For example, building on humorous scenarios was evidenced in the data, both in a cooperative and a competitive manner ('upping the ante'). Their findings are consistent with Crystal's (2008) account of co-construction of humor sequences in texting.

As outlined above, research shows that verbal humor and play are affected by the interplay of a range of factors, including specific CMC tools, speed of the interaction, as well as participants' situational identities and relational goals. In the different contexts of use, the setting or situation is also assumed to play a central role in humor. For example, if Herring (1999) is correct about the hypothesized link between coherence and play, synchronous CMC among a large number of participants is likely to show more disruption of adjacency than CMC among smaller groups and therefore more humor. Secondly, one needs to distinguish between publicly available chat rooms (i.e., non-institutionalized), in which participants communicate primarily for recreational purposes (see, e.g., Danet, 2001), and institutionalized (moderated or unmoderated) chats, since the contextual variables may play an important role in how adjacency pairs get disrupted and what types of humor and play are perceived as appropriate. Examples of differences between public chat rooms and institutionalized chat rooms include the organization of the chat by the teacher or moderator, joint tasks or goals, previously determined themes, fluctuation and number of participants, and familiarity of participants. For while CMC, originally used primarily in the workplace, was perceived as serious, perhaps because it lacked "social presence" (Danet et al., 1997, n.p.), it has over time developed into a versatile medium that easily accommodates both playful and work-related purposes, sometimes at the same time. In texting among college students, humor and play appear to be particularly prevalent. In instant messaging (IM), so-called 'away messages' which signal to other users that the an IM user is currently away from the the computer, are not only designed for the transactional purpose of sending information but for entertainment and self-expression (Baron et al., 2005; Nastri et al., 2006).

Nastri et al. found "almost one-fifth of all away messages […] included some attempt to evoke amusement" (2006, p. 1040). A quick scan of the range of mediated communication for personal, professional, or social tasks (such as social-issue discussion boards and chat rooms, multiplayer games, email lists, and electronic dating) and for broadcast-type tasks (distance learning, webcast, broadcast speeches, newsgroups, etc.) provides a glimpse of the rich data awaiting fine-grained analysis. Suffice it to say that a clearer picture is beginning to emerge of the effects CMC-based environments have on language play. The findings suggest that certain different, often interdependent features of CMC and its contexts of use, rather than the medium itself, dynamically affect humor and language play.

Because of its putative role in language learning, language play has enjoyed much attention in the area of second/foreign language learning research. Much of this research has been informed by sociocultural theory, where play figures prominently. Like language itself, the computer is a tool which allows a learner to mediate learning with the help of an expert or more advanced peer. Recognizing the myriad of interrelated variables that affect the CMC participant in the emergent interaction, researchers in second language acquisition have advocated for sociocognitive or ecological perspectives on language play in instructed environments, which can illuminate the role of humor in the presentation of the self (e.g., Belz & Reinhardt, 2004). Building on both Cook (2000) and Lantolf (1997), Belz has explored what aspects of the foreign language it is that adult learners play with and to what end. She found that learners often use language play for resemioticization of the foreign language code for both learning-relevant and pleasurable functions (Belz, 2002a). In language learning, play may put learners at ease (Belz & Reinhardt, 2004) and aid in retention of new L2 bits by increasing noticeability and by destabilizing the learner's interlanguage system, thereby promoting learning. Frequently, play tokens support the presentation of positive face, linguistic creativity, and the establishment of personal rapport (Belz & Reinhardt, 2004, p. 353)

In the context of language learning, form-based play has been of particular interest because it may function to "provide learners with the opportunity to compare their existing interlanguage system to recently acquired linguistic information in an off-line way, that is, when they are not under immediate pressure to perform publicly" (Broner & Tarone, 2001, p. 374). For ludic language, the concomitant positive effect "may simply make the L2 discourse more noticeable" (Broner & Tarone, 2001, p. 375). It may be especially helpful in vocabulary development (Bell, 2002, 2005). Secondly, language play "may facilitate L2 acquisition by enabling the learner to internalize many different voices appropriate to many different roles" (Broner & Tarone, 2001, p. 375). Thirdly, by breaking the norms of conventional language, language play may have a destabilizing effect on the interlanguage system, making it more receptive to change and growth. Thus, second/foreign language play may foster language acquisition. In addition, language play has been viewed as a rich source of diagnostic data (Bell, 2005; Belz, 2002b; Belz & Reinhardt, 2004; Cook, 2000). Recent studies suggest a correlation between language learners' proficiency and their "ability to engage in humorous language play" (Bell, 2005, p. 212; see also Cook, 2000; Tarone, 2005; Warner, 2004). Because humor is created by the perception of incongruity, a language learner must already possess a script if new phenomena are to appear contradictory or inconsistent (Carrell, 1997; Cook, 2000), which in turn requires proficiency. By the same token, Bell (2005) points out that language proficiency is not the only requirement for playful interaction. The hearer must also share a particular semantic script, for example, a joking comment about a disease may not be funny to every hearer (Bell, 2005). In this way, language play allows learners to display their individual identity, e.g., to present a positive face but also to develop and index a relational identity among participants (e.g., Belz, 2002b; Belz & Reinhardt, 2004; Boxer & Cortés-Conde, 1997; Warner, 2004). Outside the second/foreign language classroom, research on language play in CMC has primarily been conducted in workplace contexts. In both settings, humor and play can promote the quality of the social interaction and thus enhance socio-emotional and cognitive processes, which may, in turn, affect learning and/or productivity.

SUMMARY

This chapter provides an overview of the research on spontaneous verbal humor and play in CMC. Seeking to account for the abundance of verbal humor and playful discourse in CMC, researchers from a variety of disciplines including applied linguistics, communication, and psychology have investigated the phenomenon from different perspectives. In sum, language play and humor in CMC may involve play with form and meaning. Adapting social theories of oral interaction to CMC, humor researchers have shown how the absence of the nonverbal repertoire may encourage play while, at the same time, making it more difficult to signal a joke. Emoticons seem to play only a minor compensatory role, if any (e.g., Crystal, 2008; Hancock, 2004). From the perspective of computer-mediated discourse analysis (CMDA) (Herring, 1999), linguists seek to account for the abundance of verbal humor and play by looking at the characteristics of computer-mediated discourse. For example, linguistic analyses point to "ephemerality, speed, [and] interactivity" (Danet et al. 1997, p. 3) or disruption of adjacency and confusion (Garcia & Jacobs, 1999) in many-to-many synchronous CMC and the subsequent violation of Gricean maxims, which are viewed as putative triggers for humor and play (Herring, 1999). Another strand of research focuses on the social functions of humor in constituting and maintaining online communities of practice. This view is supported by a number of studies which show that CMC co-constructs humor sequences over time (Hay, 2001; Vandergriff & Fuchs, under review). Because language play and humor are claimed to promote learning and productivity in different ways, much of the existing research has been limited to institutional settings such as education or the workplace. A significant portion of the research on the topic is focused on a particular institutional setting, especially educational settings like colleges and universities. Finally, we can conclude that the emerging picture of language play and humor in CMC is becoming clearer but, at the same time, increasingly complex.

CONCLUSION

Except for a handful of studies (such as Hay, 2001; Hübler & Bell, 2003; Vandergriff & Fuchs, under review), studies of language play in CMC have largely ignored the considerable body of research on humor that is likely to provide insights and suggest analytical frameworks relevant to language play in CMC-based environments. Perhaps because language play and humor studies are interdisciplinary, associated with an exceptionally wide range of research fields from sociology, applied linguistics, cognitive linguistics, sociolinguistics, to psychology, rhetoric and composition, and anthropology, CMC researchers venturing out into humor may have had difficulty surveying the state of the research (but cf. Raskin's 2008*Primer*), for example, three theoretical frameworks, namely disparagement/superiority, relief, and incongruity (Ruch, 2008), could be tested against the new CMC data. In addition, CMC humor research may be advanced by considering the insights on conversational humor in general (e.g., Attardo, 1994; Chiaro, 1992; Eisenberg, 1986; Kotthoff, 1995, 1998, 1999; Miller, 1986; Norrick, 1993; Schieffelin, 1986; Straehle, 1993) and in specific institutional contexts, such as professional settings

(Coser, 1960) or classroom settings (Cazden, 1988; Corsaro, 1994; Poveda, 2005). With a few exceptions, most notably Ling (2005), the interdigitations of gender, identity and humor in CMC also remain underexplored (cf. e.g., Kotthoff, 2006a, 2006b). With the arrival of *Web 2.0*, whose new tools and modes offer opportunities to further promote creativity and play, much work remains to be done. By and large, research has focused on monomodal CMC. As participants interact in hybrid environments, moving from texting, to email, face-to-face interaction, or telephone conversations, how do they adapt their discursive strategies, including spontaneous humor, to construct their social identity and pursue relational goals? Future research on playful CMC is likely to yield important insights into verbal humor and play, in general, which may have been obscured in multi-channel oral interaction. At the same time, it would allow us to explore further how people adapt their tools and strategies of communicating as they move between semiotic systems (Walther, 2004).

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KEY TERMS AND DEFINITIONS

Asynchronous Computer-Mediated Communication (ACMC): Network-based communication via digital messages between two or more users. Participants do not have to be online at the same time because messages are stored on a server.

Emoticon: A typed rendering of facial expression, e.g., the smiley face:)

Face-to-Face Communication (FTF or F2F): Conversation in a face-to-face setting, oral interaction.

Initialism*:* **Abbreviation of a Phrase Using the Initial Letters of each Phrase in the Word:** e.g., LOL 'laugh out loud'

Language Humor/Play*:* **Verbal Humor:** joking or other non-seriousness

Monomodality: Communication is limited to one mode only, e.g. text

Multimodality: Communication in more than one mode, e.g. text/graphics or text/audio

Synchronous Computer-Mediated Communication (SCMC): Network-based real-time digital communication between two or more users. Participants are online at the same time.

ENDNOTES

1. The synchronous modes (SCMC) include Internet Relay Chat (IRC or chat), instant messaging (IM), and multi-user virtual realities (MOOs and MUDs), Internet phone, audio- and video conferencing, texting (a.k.a. SMS) while the asynchronous modes (ACMC) include email, bulletin boards, forums, audioboards, blogs, wikis and video-clip websites like *YouTube*. To date, research has focused on text-only CMC.
2. Crystal (2008) points out that nonstandard orthography and emoticons are not as prevalent as critics lead us to believe.
3. Crystal (2008, p. 53) does not report whether one or more participants were involved in this particular instance of language play. Based on the research literature, though, we can expect at least two players who signal their appreciation of the humor token by building on it. In this way, the response to a humor token functions simultaneously as a new humor token.

Chapter 16
SMS Texting Practices and Communicative Intention

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ABSTRACT

This study focuses on the predicate-argument structure of frequently used lexical verbs in the text messages of members of five SMS social networks. Using a text analysis tool, lexical verbs were identified, coded for semantic category, and tagged for analysis in a corpus of 31, 288 words. Three research questions are addressed in relation to lexical verb usage, structural simplification, recovery of implied argument, and achievement of communicative intention via mobile telephony. The results reveal that (1) predicate-argument structures determined by certain lexical verbs become simplified in text messages; (2) particular θ-roles assigned to particular arguments become implicit but are easily recovered; and (3) text messaging language constitutes a variety of naturally occurring language. It is possible that such language variations in use may bring about language change over time.

INTRODUCTION

In our post-modern global culture cell phones, Smartphones, and other portable technological artifacts currently in use are regarded as extensions of our identities, group affiliations, and social networks. European, Asian, and American teenagers have used mobile or cell phones for a variety of social and functional purposes such as to achieve instantaneous communication and to express individual style, status, and group affiliation (Androutsopoulos & Schmidt, 2001; Skog, 2002). Campbell & Park (2008) cite Mäenpää's (2000) study that the mobile or cell phone in Finland became known colloquially as 'känny' (also kännykkä) or "extension-of-the-hand/paw." Likewise, Ukritwiriya (2003, 2005) points out that Thai youth make meaning by calling their mobile phones, "Mue Tue," which has the same connotation as the Finish term 'känny/ kännykkä', and engage in extensive text messaging practices that have altered their lifestyles, language, social norms, and cultural identities.

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As Campbell & Park (2008) argue from a social constructivist perspective to the study of social networks, the wide spread diffusion of mobile phones has ushered in a new type of personal communication society, one where the quality of interaction varies because of changes in the composition of social networks. Furthermore, as Vishwanath & Chen (2008) point out in a review of research on mobile phone adoption, social factors, intercultural norms, contextual factors, and local and large-scale communication associations have a significant influence on the types of personal communication networks that emerge based on new technologies. Even adults, who form part of different types of social networks, have adopted these new tools and mode of instantaneous communication known as SMS text messaging. For example, Florin Troaca reports in *Communications News* that by June 30, 2008, 95.4 billion text messages had been sent by US mobile users. This type of instantaneous communication is rapidly surpassing the traditional phone call so that by 2010, 2.3 trillion text messages will be sent to and from mobile phones. Among adults, text messaging is now common in a variety of settings: the workplace, home, school, the mall, and the campaign trail.

By collecting and studying communicative electronic exchanges researchers have begun to describe how young people manipulate the conventions of discursive practices and incorporate creative linguistic elements like letter-number homophones, typographic symbols, G-clippings, and emoticons into a vast array of social networks or what Ukritwiriya (2005) refers to as semiotic microsystems. For example, Italian children in the 12-14 age range have created a new style of language tailored for SMS usage (Betti 2008). They use abbreviations such as *tvttb* for *ti voglio tanto tanto bene* (I love you very, very much) when communicating deep affection. This creative use of linguistic forms and symbols in text messaging serves a pragmatic function. Due to the spatial constraints imposed by a maximum of 160 characters the sender must transmit meaning and intention efficiently in order to elicit a quick response from a targeted recipient (Härd af Segerstad, 2005). Research by Zarantonello (2001) confirms observations made by other investigators that text message brevity presupposes a strong component of implied information. This fact also presupposes that those texting share cultural or technical background knowledge and the use of a code for interpreting abbreviations, phonetic writing, acronyms, and combinations of these elements.

This chapter is based on an investigation that focuses on an aspect of syntactic theory – the θ-criterion (theta criterion) or grid of lexical verbs used in text messages by members of five different short message service (SMS) text messaging networks. The functional uses of these verbs by senders and receivers of text messages are examined for the purpose of understanding how members of these SMS networks accomplish a variety of pragmatic functions. In this study, we define SMS social networks as sets of relationships, links, or ties between and among several actors (Meyer, 1994). Research on social networks has shown that relationships, links, or ties usually vary in subject matter, strength or density, and frequency. Additionally, findings from recent social network analysis demonstrate that individuals or actors use specific mechanisms to guide them in their choice of exchange partners. Clustering, one such mechanism, accounts for what is known as cascading benefits on actors in densely connected social networks (Levine & Kurzban, 2006). Others claim that the structure of social networks is based on meaning, and that this is achieved by applying culturally available role patterns to the relational frames in social networks (Fuhse, 2009). Thus, social relationships "are conceived of as dynamic structures of reciprocal (but not necessarily symmetric) expectations between alter and ego" (p. 51). In this study, ties or relationships would be represented by the linguistic characteristics and frequency of messages sent by the owner of a specific SMS network to other individuals or actors, as well as by the messages received by **"**ego**"** from all those who form part of his/her SMS (social) network.

The focus of this study is on language – the grid of lexical verbs in the text messaging practices of members of five SMS networks – not on the underlying socio-cultural features or structure of SMS social networks. The sections that follow will describe findings reported in the extant literature about this form of linguistic economy, text messaging, and how the results of this study add to the growing literature on SMS. The main objective is to explain how members of five socially diverse SMS networks achieve communicative intention as they negotiate information transfer among group members; share facts and plan strategies in local political campaigns; strengthen neighborhood and community ties; and maintain personal relationships.

SMS TEXT MESSAGING AND MYTHS

Text messaging is quickly outpacing regular phone calls. Nielsen Mobile reports that as of "Q2 2008, a typical U.S. mobile subscriber sends or receives 357 text messages per month, compared to placing or receiving 204 phone calls." This represents an increase of 450% in text messaging since 2006. And "tweens" (ages 8–12), who represent an important sector of mobile phone users, account for 55% of text messages generated last year (Nielsen Mobile – September 16, 2008).

As expected, some journalists and social critics have expressed concern about these new communication technologies, especially text messaging. They claim that SMS text messaging is bringing about undesirable linguistic changes, such as simplified forms of oral and written communication due to the spatial and functional constraints of cell phones. For them, electronic messages exemplify the loss of significant referential content, lack of clarity, and incomplete information about the message author's identity or intentions (Calcutt, 2001; De Sandoval, 2001; Sutherland, 2002). However, communication specialists, sociolinguists, and others who have empirically investigated the nature of text messaging in response to dire warnings by media pundits have concluded that young people's text messages are at times both noteworthy and quite ordinary or conventional. For example, Crystal (2008) recently deconstructed various myths associated with texting and its alleged negative influence on young people's writing skills, specifically their ability to spell, punctuate, or write in full sentences. He interviewed groups of teenagers in 2007 who were studying for major exams at various schools in the U.K. and was able to ascertain that youngsters were very aware that the language of texting was not to be used in formal academic writing. Furthermore, Crystal (2008) concluded after reviewing research findings of recent studies in the U.K., Finland, and other countries that "children could not be good at texting if they had not already developed considerable literacy awareness" (p. 162). It is simply a manifestation of linguistic creativity and lots of humor with the use of new technologies or cultural tools. Thus, what is written by pundits about SMS in the popular press "is often theoretically and empirically unfounded and greatly exaggerated" (Thurlow, 2003, p.21).

RECENT SMS FINDINGS

French-speaking Belgium linguists and other communication specialists at the Center for the Automatic Treatment of Language, Catholic University of Louvain, compiled a corpus of 75,000 authentic SMS text messages, preprocessed, and translated them into "standard French" (Fairon, Klein, & Paumier, 2006). Utilizing a subset of 30,000 SMSs, Fairon et al. addressed three major research questions: (1) Does SMS constitute a new language? (2) Are linguistic forms systematically shortened in SMS? (3) Is there one (global) SMS language? Their findings indicate that SMS gives the illusion of being a new language when in fact it is not since it utilizes extant linguistic conventions such as contractions, initialisms, shortenings, and homophones. As others have pointed out, non-standard orthographic phenomena are determined by the physical constraints imposed by this mode of communication. With respect to the existence of a common SMS language, Fairon et al. indicate that this contradicts the essentially changeable and playful nature of this type of electronic language. Above all, it appears that SMS is a written language extensively used by those between the ages of 10 and 25, and that attempts to codify SMS jargon will fail due to the idiosyncratic nature of rebus-like texts or words run together, along with the use of extensive non-standard conventions.

Thus, SMS text messaging represents a variety of natural language with mixed features which appear closer to the spoken mode. Since there is a need to compress information in a message to speed up its delivery, it is important to codify as much information as possible in the limited space available to users. In order to interpret contractions, acronyms, and blendings, participants must possess shared background information and be part of an SMS network.

LINGUISTIC ECONOMY AS STRUCTURAL SIMPLIFICATION: THEORETICAL BACKGROUND

The phenomenon of linguistic economy in text messages practices has not been sufficiently investigated. This study seeks to explore the nature of linguistic economy by focusing on the predicate-argument structure of frequently used lexical verbs in the text messaging practices of members of five SMS social networks. The study examines how members of the five SMS networks achieve communicative intention. Unlike other studies that have focused primarily on the social or symbolic features of text messaging practices, this study focuses on an aspect of syntactic theory – the θ-criterion (theta criterion) or grid of lexical verbs used in text messages. Since it is the θ-grid of a particular verb which determines the number of arguments it requires for θ-role assignment, if the required argument is missing in the surface realization of a text message, the standard θ-criterion of current syntactic theory will be violated (Cowper, 1992; Haegeman, 1991; Jackendoff, 2002).

Predicate-argument structure shows how many arguments the predicate takes and their thematic roles or θ-roles (Bresnan & Kanerva, 1989; Fromkin et al., 2000). Gruber's (1965) original framework was expanded by Jackendoff (1972) whose approach became the standard method to the study of thematic relations. The two main principles of the θ-criterion are summarized by Cowper (1992): (1) Every noun phrase (NP) with a referent must receive a θ-role at the deep or D-structure. If there is a lexical NP without a θ-role at the D-structure, the sentence is then ungrammatical; and (2) An NP can only receive a θ-role once; in other words, each θ-role is assigned to one and only one argument. Thus the lexical entry for each verb will specify or determine how many noun phrases (NPs) it takes, and which NP gets which thematic relation (e.g., Mark sold his house to Mary = <*agent, goal*>). The verb assigns a particular thematic role (θ-Criterion) to each argument (Jackendoff, 2002). For example, the following verbs assign specific thematic roles: eat <*agent, patient*>, give <*agent, theme, recipient*>, and jump <agent, goal>. Although at the present stage of the theory there is no agreement about how many such specific thematic roles there are and what their labels are, some types are generally distinguished: Agent, Patient, Theme, Experiencer, Benefactive/Beneficiary, Goal, Source, Location, Recipient, Percept, and Instrument. (See Fromkin et al., 2000, pp.101-127; Haegeman, 1991, p. 42). Also, there are different views of argument structure depending on the theoretical choices scholars make, and there is some disagreement as to whether argument structure is a semantic level of representation or a syntactic one. There is also the question as to how much semantic and syntactic information should be part of argument structure (see Alsina, 2006).

STUDY METHODOLOGY

The study was motivated by recent findings concerning the use of text messaging as embedded in post-modern communicative practices. Since few studies have focused exclusively on linguistic features, there was a need to investigate this example of linguistic economy by focusing on the predicate-argument structure of frequently used lexical verbs in the text messaging practices of members of five SMS social networks. Three research questions frame this investigation:

(1) What types of lexical verbs are frequently used in the text messaging practices of participants who form part of different SMS social networks?
(2) Which frequently used lexical verbs tend to have an “incomplete” predicate-argument structure?
(3) What are the implications of “incomplete” predicate-argument structure with respect to achieving communicative intention via text messaging?

Data Collection

Data for the present study were systematically collected over a period of 14 months (January 2007 through April 2008) from five SMS social networks that included 59 participants. Text messages were sent by volunteers for this study to the owners of these social networks (two males and three females). Volunteers were recruited from among family members, colleagues, political associates, neighbors, former students, high school teachers, and parents. The age of participants ranged from 16 to 64. All the participants had access to either cell phones or SmartPhones that allowed them to send and receive text messages. The initial goal of this pilot study had been to find volunteers who would be willing to respond to text-message prompts on any topic at least three times a week for a period of 16 weeks. Given the paucity of text messages received, this was later expanded to a period of 14 months.

Since our university’s Institutional Review Board (IRB) requires that strict confidentiality and anonymity guidelines for collecting information be observed, all identifiable information was stripped from headers and text messages that were downloaded using a specific type of software for Treo users – the Treodesktop. This software was developed in Italy (December 2005) by Bruno Naglieri. A total of 4829 text messages were downloaded by the owners of three SMS networks that used Treos for texting, and 382 additional text messages contributed by two young texters were subsequently added to this SMS corpus. These were messages to and from youngsters whose ages ranged from 16 to 19. Out of a total of 5211 text messages for all five SMS social networks, 2308 text messages were randomly selected for analysis. MonoConc, a software for analyzing electronic corpora (Barlow, 2002), was used to compile a list of lexical verbs. These were then manually identified, coded, and tagged for subsequent analysis with MonoConc. The combined SMS corpus selected for analysis consisted of 31,288 words (tokens) and 5245 types.

Frequently Used Lexical Verbs and Data Analysis

This study does not focus on θ-role assignment per se, but on the predicate-argument structure of frequently used lexical verbs in a subset of 2308 text messages. The text messages analyzed were exchanged among owners and members of these

SMS networks. Five categories of participants were identified as forming part of these SMS social networks: Family members and friends, neighbors, political acquaintances, co-workers/colleagues, and former students. Following the identification of the most frequently used lexical verbs in the combined SMS corpus, three raters randomly selected 10 percent of the total instances a lexical verb (in its base form and with its various inflections: talk, talks, talked, talking) had been used in each of the five social networks, and subsequently analyzed its predicate-argument structure.

For example, if "get" appeared 50 times in the list generated by MonoConc for one of the social networks, 5 usages of this verb were randomly chosen for analysis. This process was repeated when randomly analyzing lexical verbs in each of the other social networks. In some cases, verbs such as "take" appeared 21 times in one social network and fewer than 10 times in the others. Working separately, each rater analyzed the predicate-argument structure of randomly selected examples of lexical verbs, determined the number of arguments required, and specified the particular thematic role assigned by the verb. Once this task was completed, the raters compared their results so as to ensure complete agreement with respect to the analysis of predicate-argument structure and thematic role assignment. The third rater, an experienced professor of syntax and semantics, who was not involved in the data collection phase, corrected erroneous thematic role assignments and helped raters reach consensus. Any apparent surface simplification of predicate-argument structure and thematic role assignment was coded as an instance of linguistic economy. Those verbs that satisfied the required number of arguments and their respective θ-role assignments were not included in the analysis. Examples 1 through 12 from all five SMS networks show how the predicate-argument structure of lexical verbs frequently used in these text messages was analyzed. (The 'argument' is the NP which is required by the verb, and the 'thematic role' consists of 'agent', 'experiencer', 'theme', 'patient', etc.):

(1) Brought camera home…Bring <*agent, theme*> The external argument NP and 'thematic role' as agent are missing.

(2) La going to di119. please bring prompt thanks. Bring <*agent/source, theme, goal/recipient*> Missing: The internal argument NP and thematic role as goal/recipient.

(3) Bring U gd food! CU l8r. Bring <*agent, theme, recipient*> External argument NP and thematic role as agent are missing.

(4) Work anymore on your paper? Work <*agent, theme*> Missing: External argument NP and thematic role as agent. (Auxiliary verb is also missing.)

(5) Driving truck 2 accup? Drive <*agent, patient*> Missing: External argument NP and thematic role as agent. (Auxiliary verb is also omitted.)

(6) Oh crap Can't get a gps connection Get <*recipient, theme*> Missing: External argument NP and thematic role as recipient.

(7) Jamming out haha. Jam out – (listening to or dancing to a particular type of music) <*experiencer, percept*> Missing: External argument NP and thematic role as experiencer.

(8) Pat said she would have the chief send a warning… Send <*agent, theme, goal*> The internal argument NP is missing as well as the thematic role as goal/recipient.

(9) Tell U @ Milton talk over dinner. Tell <*agent, theme, recipient*> Missing: External argument NP and thematic role as agent. Also missing, the internal argument NP and thematic role as theme.

(10) Chewing on my phone again. Chew <*agent, patient*> The external argument NP is missing, as well as the thematic role as agent. (Auxiliary verb is also missing.)

(11) Wanna talk itunes wyou. Want <*experiencer, percept*> Missing: External argument NP and thematic role as experiencer.

(12) learned lessons in this campaign! Learn <*experiencer, percept*>. The external argument NP is missing, as well as the thematic role as experiencer.

RESULTS

A list of lexical verbs found in this corpus was generated using MonoConc Pro2.2. As shown in Table 1, 49 different lexical verbs were identified in the text messaging practices of members of five SMS networks. Following Biber, Conrad, & Leech (2002), these were semantically classified as activity verbs (23), communication verbs (9), mental verbs (12), causative verbs (2), and verbs of existence/relationship and aspect (3)

Table 2 shows that activity verbs were most frequently used by all participants (705), followed closely by mental verbs (545) and communication verbs (353). Few causative and relationship/existence and aspect verbs were found in the text messages analyzed (39 and 36, respectively). In the researcher's SMS text messaging network, 420 instances of lexical verbs were classified as activity verbs. These involve motion or refer to a volitional activity (i.e., an action performed intentionally by an agent or doer): *bring U gd food!* or *Gave Anna a copy*. This was followed by mental verbs (280) that normally express mental states and processes, such as *just heard an amazing talk by Claire Kramsch from Berkeley ...,* communication verbs (184), a subcategory of activity verbs that describe the activities of speaking or writing, causative verbs (37), and relationship/state of existence/aspect verbs (35). The SMS social networks of Gerard and Merlin, two adult texters, had the following distribution of semantic categories: activity verbs (188 vs. 65, respectively), mental verbs (233 vs. 15, respectively), and communication verbs (146 vs. 13, respectively). Activity verbs were frequently used in Cory's and Tuti's SMS social networks (e.g., 17 vs. 15, respectively). This was followed by mental verbs (8 vs. 9, respectively), and communication verbs (4 vs. 6, respectively). Causative and other types of verbs were rarely used by members of these SMS social networks.

Table 1. Semantic categories of lexical verbs used in text messages

Activity Verbs usually refer to volitional activity (23)	bring, brings, bringing, buy, bought (bot), catwalk, catwalking, chill out, chilling out, come, comes, coming, eat, eating, finish, finished, finishing, fix, fixed, get, gets, got, gotten, getting, give, gave, given, go, goes, going, gone, went, jam out, leave, leaving, left, make, makes, made, meet, meeting, pick up, picking up, put, print, take, taken, taking, took, try, tried, use, uses, send, sending, sent, vote
Communication Verbs (9)	ask, asked, call, called, calling, email, emailed, emailing, phone/fone, say, said, saying, talk, talking, tell, told, telling, text thank
Mental Verbs (processes, emotions, attitudes) (12)	feel, feeling, felt, find, finding, found, forget, forgot, hope, hoping, know, knows like, love, need, needs, read, reading, see, C, saw, seen, think, thinks, thought, want
Causative Verbs (bring about a new state of affairs) (2)	help, let
Verbs of Existence/Relationship (report a state of existence or a logical relationship); Verbs of Aspect (stage of progress of an event or activity) (3)	look, looks, looked, stop, stopping, wait, waiting

*Table 2. Semantic categories and lexical verb usage frequencies in text messages analyzed**

SMS Social Networks	Activity Verbs	Mental Verbs	Communication Verbs	Causative Verbs	Other Verbs (Relationship/ Existence, Aspect)
Researcher	420	280	184	37	35
Gerard	188	233	146	0	0
Merlin	65	15	13	0	0
Cory	17	8	4	1	1
Tuti	15	9	6	1	0
Totals	705	545	353	39	36

*pseudonyms are used in this study to protect the identity of the informants.

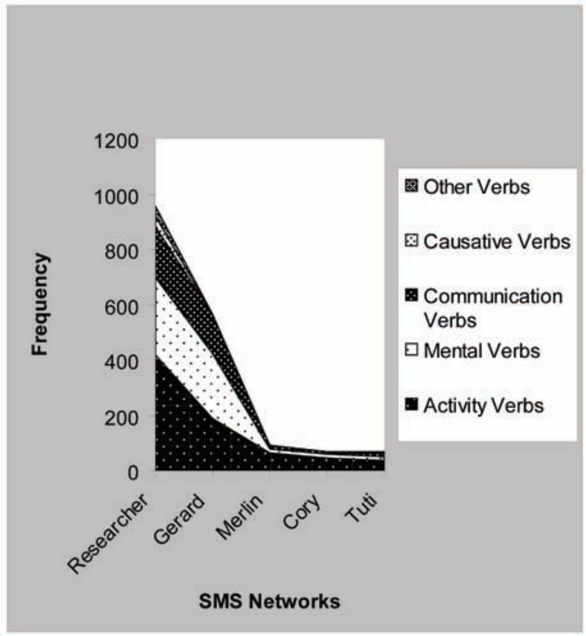
DISCUSSION

The first research question addresses the types of lexical verbs most frequently used in the text messaging practices of participants who formed part of these SMS text messaging networks. Figure 1 shows that activity verbs were the most frequently employed lexical verbs in all five SMS networks analyzed, followed by mental verbs, communication verbs, causative verbs, and other types of verbs. Semantic categories and frequency of lexical verb usage by members of each of the five SMS social networks are displayed as raw frequencies in Figure 1.

The activity verbs most frequently used involve movement (e.g., come, go) and take goals and sources as thematic relations or internal NP arguments, whereas other lexical verbs involve change of possession (bring, buy, give) with the external NP argument and thematic role as agent/actor missing. Also frequently missing are internal NP arguments and thematic roles as theme and recipient. For example, "bring," a frequently used lexical verb found in all five social networks was often missing the external NP argument and its thematic role as agent, as well as the internal NP argument and thematic role as recipient (e.g., *brought 45 copies*!). The SMS data analyzed show that these movement and transfer lexical verbs are structurally simplified since texters omit the required external NP argument and thematic role as agent or doer of the action, as well as at least one of the required internal NP arguments. The individual who receives text messages involving movement or transfer easily recovers the missing NP arguments from the context.

The second research question asks which frequently used lexical verbs tend to have an "incomplete" predicate-argument structure. The results of our analysis show that out of 168 instances of lexical verbs selected for analysis, 17 of them tend to have an incomplete predicate-argument structure. These include verbs that are normally used to perform routine activities (e.g., *Going 2 gym l8r*) or everyday chores: bring, buy, call, come, eat, find, get, give, go, know, leave, love, phone(fone), send, tell, thank, and want. Some of the verbs with incomplete predicate-argument structure that are used in these text messaging practices appear to bind individuals in closely knit relationships since they often involve a transaction or some type of request. Using 'bring', 'buy', 'call', or 'send' seems to establish reciprocal obligations in future transactions. In the case of teenagers such as Cory and Tuti, Grinter & Eldridge (2001) explain that youngsters seem to prefer texting one another as a communicative practice because of its convenience and affordability. Additionally, teenagers establish secure SMS networks in order to share common cultural interests and engage in preferred social activities with members of their own personal communication spheres.

Figure 1. Semantic categories: lexical verbs usage



In the text-messages analyzed, the formal structural configurations of verbs and their corresponding thematic role assignments as required and constrained by θ-Criterion may show structural simplification (i.e., the required argument may not appear) and semantic implication (i.e., the thematic role assigned to the relevant argument becomes implicit). In other words, the omission of the required argument(s) can be recovered through reference to previous SMS discourse or metalinguistic contextual information involving shared background information between texters and textees. Thus, the strict θ-Criterion may not be able to account for the surface realization of perfectly comprehensible text messages among members of various SMS social networks, which is a variety of a natural form of communication that uses mobile telephony. In the case of 'bring,' one of the frequently used lexical verbs that had an incomplete predicate-argument structure, *brought camera home* <*agent, theme*>, though the external argument NP assigned the thematic role as agent is missing, those receiving these text messages recover the missing external argument NP from the context provided the required internal NP argument appears or has surface realization; otherwise, *brought home* would make no sense. However, in *bringing U good food!* <*agent, theme, recipient*>, it is possible to omit the external argument NP assigned the thematic role as agent and the internal argument NP as recipient (U) and yet understand the implied thematic roles assigned to the relevant arguments by the verb (V) 'bring,' as long as the NP as theme (*good food*) is retained in the text message. When a V such as 'send' assigns an external argument NP as agent, and internal argument NPs as theme and recipient <*agent, theme, goal*>, the text message, *sending a check* is clearly understood by the message recipient who recovers the implied internal argument NP as goal from the previous SMS discourse (*I'm sending you a check*).

Also, in *Got ur delayed message*, get <*recipient, theme*>, the external argument NP assigned the thematic role of recipient is missing, but this is immediately recoverable from the shared background information and context. Likewise, in the text message *left w/o Cing the dermatologist*, leave <*agent*>, the message meaning is understood since the thematic role as agent in the missing external argument NP is easily recoverable from the SMS context.

With respect to the focus of the third research question – the implications of "incomplete" predicate-argument structure or the unexpressed θ-role assignment as regards the pragmatic functions of these text messages – the results show that 'implicit' thematic roles assigned to their 'underlying' arguments reflect the text message sender's pragmatic strategies needed to achieve his or her communicative intentions or intended 'speech act' through what would be referred to as the illocutionary force of the text message (Searle, 1969, 1975; Verschueren, 1999). For example, in the interrogative clause, *coming to prez thing?*, the auxiliary verb "be" is missing, as well as the external NP argument and thematic role assigned as agent, but this text message can be accurately interpreted as an implicit request from the sender/texter to the addressee/textee, a co-worker, for a ride to an end-of-semester social event sponsored by the institution's president ("prez"). Common interests or shared background information or knowledge is a precondition for accurately interpreting this request. It is also important to point out that examples of these SMS text messaging practices or contributions adhere to Grice's (1975) maxims of quantity, quality, relevance, and manner. Enough information is conveyed effectively that is true, relevant or to the point, and specific. Variations in surface predicate-argument structure and thematic role assignments indicate that participants engaged in normal communication, using the cell phone or Smartphone to send and receive text messages, share a 'common ground' or the required background information that allows them to recover the implicit thematic roles assigned by the verb to the underlying arguments.

The data on verb predicate-argument structure analyzed reveal that the external argument or grammatical subject is often left out in these text messages because it is easily recovered by the participants (texter and textee). For instance, the interrogative clause, *Driving truck 2 accup?*, illustrates structural simplification or omission of required arguments which can be easily recovered through reference to earlier exchanges. In this particular case, two males are discussing meeting at a specific place, presumably a store that sells house furnishings, which is the interpretation recovered from previous text messages. This supports similar findings with respect to SMS reported by Zarantonello (2001) and others. The thematic role assigned to the missing external NP argument appears to be in most cases the text message sender who could be agent, experiencer, recipient, or source.

Some of the lexical verbs in these text messages, such as bring, give, send, tell, are among those verbs that appear in two possible syntactic frames as shown by Jackendoff (2002): (a) *I / brought/gave/sent Ana the book* or (b) *I brought/gave/sent the book to Ana <agent, theme, recipient>*; and, (a) Mary told a story to Eileen, (b) Mary told Eileen a story. The syntactic variables correlate with the semantic ones. "Thus the verbs that indicate transfer (give, send) accept both syntactic frames, with the same meaning" (Jackendoff, 2002, p. 54). 'Bring', 'give', and 'send', which are frequently used in the text messages analyzed, involve movement and transfer of X or something to a recipient. 'Tell', on the other hand, a communicative verb viewed as a subcategory of activity verbs, as in *Mary told Eileen a story*, involves the active transfer of information (the story or theme) from Mary to Eileen, the recipient.

FUTURE RESEARCH DIRECTIONS

This study has analyzed empirical data based on a sample of text messages of 59 adults who were part of five SMS social networks. It has sought to explain how communicative intention is successfully achieved by adults and youth who form part of these SMS text messaging networks. Text messages represent a form of linguistic economy because they save time and speed up communication. Their spatial constraints encourage message senders to make their contributions brief, relevant, true, and intelligible. The message exchanges in these social networks can be characterized as brief conversations between and among individuals who know each other to varying degrees and share knowledge and socio-cultural interests. Thus the context and implied meaning of each message is determined by personal relationships and a shared common ground.

With respect to future trends in linguistic analysis, the focus of this chapter on a form of naturally occurring language, American English text messages, poses a challenge to a strict interpretation of the θ-Criterion. Since one of the required arguments, primarily the external argument NP assigned the thematic role as agent, is often omitted in these text messages, the θ-Criterion as defined in syntactic terms is violated. In other words, the required verb arguments fail to appear on the surface; therefore, the predicate-argument structures, according to the θ-Criterion, are violated because all arguments have to appear.

The standard θ-criterion appears to be too strict or exacting to adequately describe and explain naturally-occurring performance data such as text messages. As it has been successfully demonstrated, the textee or addressee can easily recover the θ relations with their implications in synchronous communication mediated by a techno-cultural artifact – the cell phone. In the context of mobile communication, including every required verb argument on the surface is superfluous and adds nothing to the interpretation of the message.

Since this study involved a small corpus which is not representative of a large cross-section of the American English-speaking population, a large corpus of approximately 30,000 SMS text messages is needed for future investigations of the argument structure of lexical verbs. Participants from the 15-19 age cohort and individuals from different geographic and socio-economic backgrounds need to be recruited for future studies. Additionally, adverbs and other elements that might co-occur with lexical verbs used in text messages, as well as pragmatic inferences, need to be taken into consideration when undertaking this type of research. This will lead to a more sophisticated understanding of what we describe as a type of linguistic economy resulting from structural simplification and semantic implication in natural communication via mobile technology.

CONCLUSION

To summarize, despite violations of the θ-Criterion in the text messages analyzed, where the external NP argument normally assigned the thematic role as agent is often missing, or in cases when the internal NP argument assigned the thematic role of theme or goal is also missing, the recipient of the text message or addressee promptly recovers the implicit thematic roles assigned to the verb's underlying arguments. The sender's pragmatic strategies that result from constraining message meaning to 160 characters are successful as demonstrated by the addressee's ability to accurately interpret the implicit thematic roles and meanings. In other words, communicative intention is successfully achieved as evidenced by the message recipient's compliance with an implied request, *Wanna talk itunes wyou*, or with the carrying out of a specific errand, *brought U good FOOD!*.

Some important findings of this study and their implications include: (1) Predicate-argument structures determined by certain verbs may become simplified in text messages, which represent a form of spontaneous, abbreviated communication that is technologically mediated. (2) Particular θ-roles assigned to particular arguments become implicit but are easily recovered and understood by both parties (i.e., the sender/

texter and textee or recipient of message) because of the collectively shared information or background knowledge. (3) SMS text messaging language appears to constitute a particular variety of naturally occurring language, which is widely used on a global scale across age cohorts and socio-economically and occupationally diverse networks.

(4) It seems possible that language variations in use, as exemplified by the use of lexical shortenings, G-clippings, homophones, abbreviations, structural simplifications and semantic implications in this text messaging language, may cause potential language change over time, and this may in turn affect the learning of standard varieties of a natural language, especially among second- and foreign-language learners.

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KEY TERMS AND DEFINITIONS

Background Information or Common Ground: The knowledge and cultural assumptions that the sender and receiver of text messages share about the situation they are texting about.

Cell Phone or Mobile Phone: A hand-held mobile radio telephone for use in an area divided into small sections or base stations, each with its own short-range transmitter/receiver. Most current mobile phones connect to a cellular network.

Communicative Intention: In text messaging practices this refers to the successful sharing of implied meaning or intended message in the simplified linguistic code of the texter/sender.

Lexical Verbs: This is one of the four lexical word classes in English. Lexical verbs act as main verbs in clauses.

Linguistic Economy: This involves the structural simplification of language in SMS text messages sent and received by members of various SMS social networks.

Mobile Telephony: This term covers the use of mobile phones, radio systems, and satellite phones.

Predicate-Argument Structure: This deals with how many arguments the predicate of a lexical verb takes and their thematic roles or *θ-roles.*

SMS: Also known as Short Message Service, commonly referred to as "text messaging." This is a service for sending and receiving short messages of up to 160 characters to mobile devices, such as cell phones, Smartphone, and PDAs.

Theta (*θ-)* Role: The semantic role played by a participant in an event or situation, such as Agent, Patient, or Goal.

Chapter 17
Chat Discourse

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ABSTRACT

In this chapter, the author characterizes the language that appears in one form of computer mediated communication: real-time casual chats. It is also shown that the new writing that occurs in chats in general, filled with deviations from standard writing, does not merely imply the creation of a new language but is rather the unconscious recreation of pre-existing features both from early writing systems and learning to spell. Chatters even recreate characteristics present in language acquisition. The deviations generally affect the syllable, an intuitive prosodic unit that influences changes in spelling. Chat discourse involves the use of cohesion mechanisms present in other texts, as well as new devices that allow chatters to compensate for the absence of physical clues. Thus, real-time casual chats are a medium in which language is being changed and (re)created.

INTRODUCTION

Nowadays we get more and more information for a much lower price, thanks to the progress of technology. The technological advances of the Information Age have brought about the possibility of communicating through the computer, which creates new challenges concerning language and behaviour.

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Computer-mediated communication, based on a written message that circulates through computers, can be synchronous or asynchronous, depending on the time the receiver gets the message: immediately (in real time) or instead minutes, hours or days afterwards.

This chapter will focus on real-time communication in chat programmes since we consider that it involves the necessary conditions for language (re) creation. In fact, real-time communication requires writing fast, without previous planning and posterior revision, and with limited editing possibilities, as Veronis & Neef (2006) stress. Moreover, as a large number of people try to communicate simultaneously in multi-participant chats, they have to employ some strategies to make their discourse expressive and attractive to others. Consequently, language is transformed due to the need for economy, on the one hand, and the need to be expressive and convey one's feelings, on the other. Changes are proudly made to create the sense of belonging to a new group – a virtual community in which people can communicate online and share their interests and beliefs. This can be seen in languages which have an online presence, such as French (cf. Anis, 1998), English (Crystal, 2001/2004), Spanish (Rúa, 2005) and Portuguese (Benedito, 2002).

While some linguists refer to the possible reinvention of writing on the Internet (such as Pedras, 2002), others mention that the features used in this type of communication have already been seen in other types of texts, such as cartoons, advertisements and poetry (Veronis & Neef, 2006): what is new, though, is their simultaneous and worldwide usage.

In this chapter, we intend to characterize the language that appears in public informal chats. It is our purpose to show that the new writing participants use does not merely imply the creation of a new language but is rather the reactivation of pre-existing features. Thus, the objectives of this chapter are:

- To characterize one type of chat discourse and the context in which it appears;
- To confirm if cohesion and coherence devices are used in this type of chat;
- To see what transformations are occurring in chat abbreviations and their relation to the speakers' knowledge of the syllable;
- To verify the possible recreation of features from early writing systems;
- To check if the deletions of graphemes conform to the unmarked structures present in the early stages of language acquisition;
- To test whether writing in chats can recreate phases of learning how to spell.

BACKGROUND

Computer-Mediated Communication

There has been an explosion of new forms of written communication: SMS, chats, e-mails, forums and blogs. In fact, people in the world have never written so much as nowadays (Anis, 1998; Pedras, 2001; Veronis & Neef, 2006). The language that appears in this type of computer-mediated communication shows a deviation from standard writing (Benedito, 2002; Crystal, 2004; Veronis & Neef, 2006). The extent to which these deviations occur depends on the type of communication. Whereas e-mails can in general follow the spelling rules, chats, which are a synchronous form of communication (i.e., happen in real time), are more easily filled with transgressions.

The deviations in chat discourse are consciously used to form a group identity or a virtual community, linked due to the similarity of interests and not because of geographic proximity (Dias, 2000; Reid, 1991; Silveirinha, 2003).

Chats

Chat programmes enable Internet users to communicate to other netters who are geographically distant via a text message sent through the computer. Sender and addressee must be logged on simultaneously in order to communicate.

There are different kinds of chat. According to Araújo (2004), some types include educational chats, public or private chats or even chats with a guest. Herring (2007) proposes different parameters to characterize computer-mediated communication and, according to these, two texts belonging to the same genre may differ in a relevant way. In fact, a chat can either be public, private or semi-private; allow anonymity or presuppose that sender and addressee are known; have an official topic of discussion or enable the use of different topics, according to the choices of speakers; and have a more formal or casual tone, for example. All these features have implications in the characteristics of the conversation.

In general, a person who enters a chat room can find two separate areas: the composition area, where one can write messages, and the communication area, where the interaction develops. Messages are sent to another person who is online at that precise moment. To answer, one must type one's message and send it to the area where communication is flowing by clicking "enter".

As the interaction develops in real time in chats in general, fast feedback is required, which demands an economy of writing to guarantee the conversational dynamicity (Benedito, 2002; Mann & Stewart, 2000; Palmiere, 2006; Pedras, 2001; Reid, 1991; Seara, 2007). In fact, a reduced amount of words is used to convey meaning (Mann & Stewart, 2000) and, generally, little attention is paid to spelling and punctuation (Crystal, 2004; Mann & Stewart, 2000). Messages are written at the present moment without employing the three regular stages in the process of writing: planning, writing and revising. The instantaneity of the conversation requires continuity and fluidity as pauses and silence disturb communication (Seara, 2007). Thus, chat discourse is generally described as informal in most cases, even though people may be interacting with unknown users of the Internet. As their identity is hidden behind a nickname, chatters use a type of language that allows them to generate familiarity and intimacy (Seara, 2007), a type of language that abbreviates the physical and emotional distance between them. There are cases, however, in which a formal tone is a requisite, according to Herring's classification parameters (Herring, 2007), and, consequently, these changes do not occur.

Casual chats, nevertheless, seem to be close to oral speech. In a possible *continnum* of written and oral texts, chat discourse, in spite of being written, is close to a prototypic oral text, as Hilgert (2000) points out. Indeed, conversation develops in a turn-taking process and speed is a requisite, like in oral speech (Hilgert, 2000). Many linguists refer to the attenuation of the barriers between oral speech and writing in chat discourse (Costa, 2000; Crystal, 2001/2004; Mann & Stewart, 2000; Mondada, 1999; Sá & Melo, 2004). Shortening devices are used to make utterances more reduced, and thus sentences do not include certain linguistic elements, as happens in speech. According to Rodrigues (2007), the sentences are reduced in speech due to intimacy and shared knowledge about some situations. Consequently, expressing the whole information would overburden the listener with irrelevant information.

Seeing that there are many speakers in multi-participant chats, each person tries to capture each other's attention: they generally try to seduce and please the others (Benedito, 2002; Pons, 2002). Thus, they tend to use words with positive connotations and devices to express their feelings. They want to transmit their availability in order to begin a conversation with one or more chatters (Sáez, 2007).

Deviations from Standard Writing and Possible Reasons for Their Occurrence

Deviations from standard writing in different languages can be divided into three main categories, according to Veronis & Neef (2006), who follow the division of Anis (1999): the approximate respect of spelling and typographic rules, the presence of neologisms and "neographies" and the emergence of specific ways of communication or scenic indications.

The approximate respect of spelling and typographic rules includes the absence of punctuation (Sáez, 2007; Seara, 2007; Veronis & Neef, 2006) or instead the excessive use of punctuation, usually question or exclamation marks (Costa, 2000; Crystal, 2004; Pons, 2002; Seara, 2007). While their absence is due to economy and does not compromise comprehension, their excessive use is related to creating emphasis and conveying the sender's emotional states. Capital letters are frequently missing when their use is conventionalised (Crystal, 2004; Veronis & Neef, 2006), like in the beginning of sentences. However, capital letters may be used to represent intonation and prosody and thus they can indicate emphasis or a scream, for instance (e.g. "OLA" – "HELLO") (Costa, 2000; Crystal, 2004; Ellsworth, 1994; Pons, 2002; Sáez, 2007; Seara, 2007). Some spelling mistakes can also be seen; nevertheless, they are not usually due to lack of competence but because of performance demands (Sá & Melo, 2004; Veronis & Neef, 2006).

As far as the presence of neologisms is concerned, it can be registered the use of foreign words usually related to the new technologies (like "download"), as authors like Mondada (1999) and Pedras (2001) state. Moreover, the employment of "neographies" implies the intentional creation of new spellings. An example is the use of the phonetic writing, i.e., spelling words as they are actually heard (Palmiere, 2005; Pons, 2002; Sá & Melo, 2004; Saéz, 2007; Veronis & Neef, 2006). Phonetic writing may involve deleting a grapheme without a phonetic value or using another grapheme to represent a phoneme (like "k", which can be used to replace other graphemes with the same phonetic value in that context). Moreover, sometimes words are abbreviated. These abbreviations may give rise to consonantal skeletons, which presuppose the elision of vowels, leaving the words only with consonants (Anis, 1999; Hilgert, 2000; Palmiere, 2006; Seara, 2007; Veronis & Neef, 2006). As far as abbreviations are concerned, these may also include truncations or clipping, i.e., elision of the final part of the word (Rúa, 2005; Veronis & Neef, 2006). Acronyms are also a shortening device, since they are composed of the first consonant of two or more words (Pedras, 2002; Rúa, 2005; Crystal, 2006; Veronis & Neef, 2006; Sáez, 2007). The use of logograms must also be stressed as they are symbols (like "+", for example) that are employed to replace words (Crystal, 2006; Veronis & Neef, 2006). Rebus abbreviation, which may also be denominated by the use of letter and number homophones, means that a letter or a number is used to represent its sound (Crystal, 2006; Palmiere, 2005; Rúa, 2005; Veronis & Neef, 2006) – "2" to "to, too" or "c" to "see". Contrarily to abbreviation, participants sometimes use the repetition of letters (Costa, 2000; Crystal, 2004; Sáez, 2007; Veronis & Neef, 2006) in order to express emphasis or the prolonging of sounds in speech ("olaaa" – "hellooo").

The emergence of scenic indications includes the use of smileys or emoticons, such as ":)", and elements that compensate for the absence of contextual clues, including onomatopoeias ("zzz"), words that represent laughter ("eheh") and interjections ("ah"). These are like scenic indications (Ellsworth, 1994) and meta-enunciative elements (Veronis & Neef, 2006) that clarify the speaker's intentions. They show connivance, irony, complicity, solidarity and the need to read the utterance in the non-literal sense, for example (Pons, 2002; Veronis & Neef, 2006).

But why are these changes taking place? Who is creating them? These changes are being instigated especially by young people as a means of forming a group identity. Linguistic subversion in chats serves to establish pride in belonging to a different community: a virtual one. Those who know the language belong to the group and those who do not (newbies) are left out (*cf* authors like Pedras, 2002; Pons, 2002; Sáez, 2007). There are people who are not proficient or even who do not have any contact with these new technologies, and thus they are considered "digitally excluded" (Araújo, 2007).

What advantages can the "insiders" have? How can they exclude the other possible participants in the conversation in chats? Sveningsson (2001), in her study of a Swedish chat, concluded that being an insider means having a higher status, which implies having more participants with whom to interact. The insiders may create mechanisms to shut other users out by having private jokes or a language that the others cannot understand or by simply ignoring them.

The nickname chatters choose when entering chat rooms (in those where anonymity is possible) is a part of the construction of their identity: each person can decide who he/she wants to be. In fact, each net user can play a role in this kind of 'theatre' (Benedito, 2002).

If used in contexts outside computer-mediated communication, this type of writing is condemned even by net users. This was showed by Palmiere (2006), who studied people's reactions concerning the use of this type of language not in chats but in cyber-films subtitles. Not only people who do not usually use the net but also net users argued against the appearance of chat language outside the context of chat programmes. This shows that chatters are efficiently (re)creating new ways of transmitting meaning through language as a means of adapting to a new medium. Consequently, we believe that this reflects their textual competence, i.e., their ability to adapt their writing to the situation, medium and context. As a matter of fact, net users know that standard writing is inefficient in a context that calls for urgent feedback and they are unconsciously aware of the most relevant information that they must preserve.

CHAT DISCOURSE AS A RECREATION OF PRE-EXISTING FEATURES

Methodological Issues

Seeing that a synchronous type of communication demands changes in writing, we thought that these changes or deviations from standard spelling and typographic rules could lead us to the speakers' intuitive knowledge. In fact, although chat users may not have explicit knowledge of the features present in language acquisition and in other writing systems, for instance, they seem to be implicitly recreating these characteristics in public casual chats. Consequently, we thought that, by checking which structures and spellings are preserved in orthography and which ones are frequently deleted, we could gain access to the units that are most important in the mind of the speakers, as we share Chomsky's belief that language is a state of the mind (Chomsky, 1986). Consequently, we followed the view of the mistake not as a flaw deserving sanction or punishment but as a path to the speakers' minds, following authors like Luelsdorff (1987).

In fact, the "errors" present in chat discourse are not made at random; rather, they have some regularity. They are close to features from early writing systems, and from early strategies used in the process of learning to spell. They can even recreate unmarked structures present in language acquisition. Moreover, chat discourse makes use of common coherence and cohesion mechanisms, as well as new ones, thus forming a textual unit.

These assumptions are supported by corpora studies that we have carried out on a Romance language, Portuguese. The corpora were taken from the chat programme "bláblá" from "aeiou" in Portugal. According to the classification parameters proposed by Herring (2007), this public chat programme is characterized by its synchronicity; one-way message transmission (as addressees only receive the message after it has been completely written by the sender) and reduced dimension of message buffer, as there is a limit on message size. Moreover, it is composed of text only (without the use of graphic or video information). It possesses a casual tone; allows the use of nicknames, freely chosen by participants; enables users to carry on public conversations only (if they want to converse privately, they are required to go to a different programme) and has a system that posts messages in the order in which they are received.

Interaction develops from many senders to many addressees; and there is no official group topic.

One of the corpora consisted of 90 minutes of chat conversations. A total of nine sessions were recorded, each ten minutes in length, and these were spread between different parts of the day and distinct chat rooms, in order to provide a cross-section of users with divergent interests. The total of 10685 words found was based on the premise that every sequence of characters between blank spaces is considered a word. 2900 sentences were counted, corresponding to any sequence of words which started with the beginning of a turn and finished with a full stop, a question mark, an exclamation mark or even with no punctuation if followed by a different turn. The words were divided into categories according to the deviations they possessed. Sometimes, a word was put in more than one category as long as it had more than one deviation to norm. Categories included suppression of graphemes, diacritics and punctuation marks, changes in graphemes and use of elements that could compensate for the absence of physical contextual clues, amongst others.

In another study, involving 4456 words and 1479 sentences present in 40 minutes of chat discourse, we were concerned about finding coherence and cohesion mechanisms (such as anaphors and the use of connectors, amongst others), as well as expressions that contributed to structure the interaction (to start and end a conversation, for example).

The general results from these studies, along with their conclusions, will be described below.

Coherence and Cohesion in Chat Discourse

It is our belief that chat discourse is structured like a conversation, and also that common mechanisms of coherence and cohesion are employed to build a textual unit.

Structure and Turn-Taking

Chats may present textual fragmentation (Mann & Stewart, 2000; Seara, 2007) caused by the fact that unrelated messages from other participants intervene between the initiation of a conversation and its response. However, each conversation established between two chatters is generally sequenced like a face-to-face conversation, and like the interactive discourse, which reproduces oral conversations in writing. The structure of interactive discourse or dialogue generally involves three phases (Bronckart, 1996): the opening phase (beginning of the interaction), the transactional phase (construction of the thematic content) and the closing phase (end of the interaction). In our study involving 40 minutes of chat discourse, we concluded that this structure was generally respected, but there was a discrepancy between the sentences/ expressions used to begin a conversation and those that would end it. The truth was that there were more linguistic elements related to the beginning of a conversation, and this was due to the fact that some people repeated sentences like "alguém quer teclar" (Does anybody want to talk/write?) to express their availability; there were also chatters that greeted people joining the chats, even though they did not begin a conversation with them. The transactional phase follows, and we can conclude that the themes are based mostly on personal identification and getting to know the person you are interacting with. Before the closing phase, there is a pre-closure, in which the person gives a reason for ending the conversation, so that it does not end abruptly. Then, they use a conventional expression like "Até qualquer dia" (See you soon) to end the interaction.

As far as turn-taking is concerned, a face-to-face conversation is generally composed of turns. Each turn corresponds to a period of talk of each speaker and it is the speakers' task to determine when it is appropriate to take the next turn. According to the model of turn allocation developed by Sacks, Schegloff and Jefferson (1974), the current speaker may either select the next one or choose to keep the turn; on the other hand, the next speakers may select themselves. In the chats studied, when entering a room, a participant may self-select by joining the on-going conversation; but another speaker that has already entered the chat room and is already interacting may choose to address a message to the entering participant, thus selecting the next participant. One may also be ignored or choose not to address anyone. Although the participants may use the nicknames when addressing someone ("olá, nina" – "hello, nina"), the chat structure also enables a clear identification of the sender and addressee in each turn: "Nino para Sara: olá, Sara" (Nino to Sara – hello, Sara). Another possibility consists in addressing the whole room: "Ninakida: olá a todos" (Ninakida: hi, everybody).

The messages are usually short and there are constant exchanges of turns, which happen whenever one sends an utterance to the area of the flowingconversation. The time between interventions is generally longer in chats than in face-to-face conversation – the medium constraints impose delays in conversation. This causes the disrupted turn adjacency (the textual fragmentation previously mentioned), as related turns are separated by unrelated ones.

Cohesion and Coherence

Cohesion and coherence mechanisms function together to form an articulated text with a meaning and a communicative intention. Cohesion can be sequential, involving the use of conjunctions and connectors, and referential, related to anaphors. These consist of words and expressions, like pronouns and synonymic expressions, which refer to something already mentioned; if no words are used, there is a process of ellipsis, which is a common process in Portuguese as it is a language in which the subject is not obligatory, unlike English.

In the corpus composed of 40 minutes of chat discourse, we concluded that conjunctions are used mainly within the sentence; there is not a regular use of connectors to establish logical relations between paragraphs, due to the short length of the utterances. Sometimes, the absence of the use of a conjunction was registered, but it did not interfere in the communication as people were able to recover the logical relation intended (for example, "dd tc idd?" is a short form for "Where are you writing from [and] how old are you?"; though the conjunction is not expressed, it can easily be retrieved due to the contextual information).

As far as the use of anaphors is concerned, ellipsis is the most used one (example: "[os apartamentos] estão caros" – [flats] are expensive). There is also the possibility of replacing a noun phrase by a pronoun ("como *a* tens [a foto]" – how you have *it* [the photo]) or by another noun phrase ("castelo branco – *essa linda cidade*" – "Castelo Branco – *That beautiful city*"). These anaphors are the most accessible ones, i.e., the most direct and thus more easily interpreted. However, more indirect anaphors can sometimes be employed. Although they require a cognitive effort in their interpretation, they may also represent a challenge. They can be used to make a comment about another utterance (e.g. 'inquérito' – "enquiry": this is a way of replacing all the questions asked by another person and suggesting a sarcastic remark).

Chats also include new cohesion mechanisms, such as the use of emoticons like ":)" and paralinguistic information (e.g. "lol" to suggest a laugh and "zzzz" to imitate the sleeping sound). These devices are employed to clarify the speaker's intentions and emotions, thus functioning as a discursive strategy and as a kind of scenic indication (as is referred by Benedito, 2002 and Ellsworth, 1994, for example).

Users of chat programmes are concerned about the success of their communication and so they make clarifications and use simple and direct sentences. They tend to avoid verbalising all the information with the aim of not overloading the person interacting with them with unnecessary information. Therefore, they are making the reader's task easier and insuring that their utterances are understood. Coherence is also present as the users achieve their main goal: interaction and social contact.

Chat Discourse and Syllable Structure

Syllable structure is affected in chats since many graphemes are suppressed and others are sometimes added.

The syllable was regarded according to the multilinear framework, in which it is universally considered as a hierarchical unit divided into onset and rime, branching into nucleus and coda (Blevins, 1995). Hence, in Portuguese, the nucleus is always a vowel (d*a*r – give) or a diphthong (p*ai* – father), though it can be empty in some exceptional cases (p_neu - tyre). The onset may have up to two consonants (*d*ar – give; *fl*or – flower) or be empty (_árvore – tree) whereas the coda position, when filled with segmental material, can only admit one consonant (da*r* – give) (Mateus & Andrade, 2000; Mateus, Frota & Vigário, 2003). The most frequent syllable format is the unmarked CV, as attested by Vigário & Falé (1994).

The general tendency found for Portuguese was rime deletion: some frequent words were turned into "consonantal skeletons" such as 'mt' – "muito" (very); 'ctg' – "contigo" (with you) and 'td' – "tudo" (everything). It is curious that one grapheme from each syllable is generally kept, showing the speakers' intuitive knowledge of the importance of this prosodic unit.

There was also a tendency to simplify some structures like complex onsets and syllables with codas (though not to a great extent). Thus, 'goto' – "gosto" (I like) or 'bigado' – "obrigado" (thank you) were employed to make writing simpler. However, word-final coda consonants were sometimes kept (even though the nucleus was deleted in some cases) to inform the reader about plural forms, verbal person marking and nasality. As a matter of fact, the speakers intuitively know that they should reduce the level of ambiguity by making use of inflections such as 'tcls' – "teclas" ('you type') instead of 'tcl', which can also stand for "tecla"('he/she types') in the same context.

Some syllables were deleted, as happens in oral speech: 'tar' – "estar" (be), 'nina' – "menina" (girl), for instance. This illustrates that speakers intuitively know which the most prominent syllables are, and therefore choose to preserve them.

Although many of the changes are brought about by the need for economy and speed, some of them are aimed at increasing expressivity. Consequently, some graphemes are added just to convey the emphasis that characterizes speech. The repeated graphemes are frequently vowels in stressed syllables, such as 'oláááá' – "olá" (hello).

Chat Discourse and Writing Systems

Writing systems and chat discourse are both ways of representing meanings or certain aspects of language in a specific medium. There are writing systems that represent morphemes/words and others that represent sounds. In fact, according to Calvet (1996), Kress (2000) and Martin (1972), writing systems can be divided into two major groups:

- *Logographic* - which represent the meanings of words directly;
- *Alphabetic* – which represent the sounds of the words. They can be phonemically more transparent, and thus generally possess a one-to-one relationship between graphemes and phonemes, or more opaque, aiming to transcribe the etymology and morphological relations of words instead of recording each sound produced (e.g.: "sign", in English, is not written "sayn", for example, because that word would not show the relation to other associated words such as "signal"). There are syllabaries, wherein a symbol represents a syllable,

and consonant scripts, which represent consonants only, presupposing that readers will 'insert' the correct vowels based on contextual clues and their own linguistic knowledge.

In chat discourse, the use of emoticons can be compared to logographic systems since a picture (rather than a representation of the sound) is used to convey a meaning, such as the speaker's feelings. It shows the importance of pictures in writing, since they were an early form of displaying meanings employed in written language. It also gives evidence for the significance of facial expressions in oral communication.

Moreover, keeping the number of syllables can be compared to syllabaries, as the character which is preserved stands for the whole syllable. Each one is represented by the onset in most cases, but there are syllables in which the nucleus is kept, mainly when the syllable is formed only by a vowel. Chat users seem to have an important intuitive knowledge of the syllable that allows them to maintain each syllable represented.

Furthermore, the preservation of the onset bears some resemblance to consonantal scripts, as the graphemes which are maintained are often the consonants. Consonantal scripts may be considered the most economical ones (according to Daniels, 2001), as they make use of a very limited number of graphemes to represent the words in the language. The fact that consonants are kept suggests that the speakers are intuitively aware of their informational superiority in comparison to vowels, and of the importance of the context to provide sufficient information for word recognition.

Finally, writing words as they are heard suggests that these speakers are searching for an alphabetic writing that is phonemically transparent. In fact, the level of arbitrariness is reduced as they tend to produce a more bi-univocal relationship between graphemes and phonemes, which would create an optimal orthography, according to Klima (1972). This shows that speakers are accurate listeners, who can detach themselves from their orthographic knowledge, formally learnt in schools. Although disconnecting from spelling rules may involve cognitive effort, speakers seem to be doing so because there is also a gain: a gain due to the resemblance to the phonetic form, which is what alphabets try to depict. A word written according to its sound is more easily accessed and learnt by children.

Chat Discourse and Acquisition

As far as language acquisition is concerned, the first structures and sounds acquired by children are considered universally unmarked. Unmarked structures and sounds are those generated by languages in general, whereas marked ones are avoided (Lacy, 2006). According to the Optimality Theory, markedness constraints outrank those of faithfulness in the initial state, and this hierarchy is responsible for the choice of universally unmarked structures (Smolensky, 1996). These markedness or structural constraints include the need for an onset, a nucleus and no coda, which gives rise to the core syllable CV (consonant and vowel).

The possible relation between acquisition and chat language was suggested by linguists like Pons (2002), who noticed some similarities between chat language (in Catalan) and babytalk (the language used by adults when addressing children), such as repetitions, suppression of graphemes in coda position as well as deletion of initial syllables.

In our study of Portuguese (Silva, 2006), involving 90 minutes of chat discourse, we found controversial results concerning the possibility that chat discourse is able to reflect unmarked structures, which are acquired first by infants. On the one hand, the onset (unmarked syllable constituent) was usually preserved, and sometimes simplified, in cases where it was complex. Moreover, the coda (a marked structure, which is usually acquired later) was sometimes subject to deletion. Consequently, some syllables with the format CCV and CVC were regularised into the unmarked CV. As far as syllables are concerned, some initial syllables were deleted, such as 'pera' – "espera" (wait), resembling initial phases in language acquisition. On the other hand, abbreviations in chats targeted a specific syllable constituent: the rime. Thus, there was no tendency to form the unmarked syllable type CV. Furthermore, some complex onsets were written according to standard orthography, serving as units of lexical recognition, and some codas were kept, aiming to represent nasality and inflections.

It was considered that these changes into babytalk had the purpose of creating a more expressive language, showing care and affection. It may also be an intuitive recreation of the language's most unmarked structures.

Chat Discourse and Learning to Spell

Spelling rules are conventions that are not always accurate in terms of representing the sounds as they may also show morphological relationships between words. This happens especially in opaque orthographies. Portuguese, for instance, is phonemically transparent but possesses some opaque features (cf., for example, Veloso, 2005).

As regards learning to spell, Valtin (1997) distinguishes six kinds of strategies, which evolve from figurative and logographic strategies to more phonetic ones and, finally, to phonemic strategies with the use of orthographic patterns and morphemic information. Some of the mistakes that children produce in their early learning of spelling are phonetically-motivated (Kress, 2000; Pinto, 1998; Valtin, 1997), and there is even a phase in which the children only represent the first letter or the most important and salient sounds. This can be related to what happens in chats.

In fact, in this type of writing, there are some changes and suppressions of graphemes generally aimed at reproducing the phonetic forms of the words. This happens not only in Portuguese ('xuva' to "chuva" – rain; 'aki' to "aqui" - here; 'i' to "e" - and) but also in English ('coz' to "because"), French ('cé' to "c'est" – it is) and Spanish ('kerer' to "querer" – to want).

The speaker may be trying to form an optimal orthography as the orthographic units become more systematically related to the linguistic elements. However, some of the graphemes are still used to represent more than one sound, which is not economic (for instance, in changes of graphemes, "x" is used to represent two different phonemes).

As children learn to spell, they become more and more influenced by their orthographic knowledge. This influence becomes clear in many words in chats, as most of them are written according to spelling rules. In fact, changing a word implies cognitive effort (Anis, 1998) and doing so is an intentional choice on the part of chatters.

Recommendations

We argue that chat discourse can be considered as a means of communicating fast and efficiently and a way of accessing the speakers' intuitive knowledge.

Chat discourse presents a challenge to linguists and its study should be covered by many different areas within linguistics: phonology (syllable structure in chats), morphology (analysing the formation of new words), syntax (the predominance of parataxis, for instance), semantics (studying the use of indefinite articles is an option) and discourse (chat discourse as a new gender; strategies of cohesion and coherence; comparison to other genders, such as publicity). Other sciences, such as Psychology, can gain by studying other phenomena like the identity construction in chats.

If teachers are concerned with what is happening to spelling due to the transformations in writing that occur in real-time communication, they should make sure that students understand that writing must be adapted to the medium of communication. As all types of texts should be brought into the classroom, so should chat discourse, as a way of preventing info-exclusion.

What could be the benefits from including chat discourse in the school curricula? If telegrams and notes, which have an elliptic language, are studied at school, so too should chat discourse, so that the differences in its language and the reasons for their existence may be explicitly presented and understood. This could make students think about their linguistic knowledge, their competence, thus gaining metalinguistic awareness. Some questions could be proposed: Why do we delete certain graphemes? Is there any regularity in this suppression? Why do some syllables disappear while others are kept? Why do we add graphemes and in what position do we do so? What is the importance of context for communication? What kind of sentence elements can be suppressed? Why do speakers reduce sentences? It would also be an important means of reflecting on the relevance of summaries and abridgements.

Criticizing some kinds of writing and excluding them from the school curricula will not solve the problem. Therefore, chat discourse should be used as a means of accessing one's intuitive knowledge and even to make chat users explicitly reflect on the changes they are making and why they are doing so.

FUTURE TRENDS

What other studies can be conducted in order to clarify chat discourse and its relevance? We believe that a relevant study would be the comparison between language in public chats and in Messenger in Portugal – as the netters that interact with us in Messenger are people of our acquaintance, contrary to what happens in public chats, where they are generally unknown, the language used may be different. In fact, knowing the person we are talking/writing to could result in a greater or fewer number of deviations from standard writing.

Other studies could include a comparison among languages: do different languages and language families behave in the same way as far as deviations are concerned? Rúa (2005) found out that Romance and Germanic languages differed in what concerns the use of shortening devices, due to each language's spelling, phonotactics and flectional system. It would be interesting and relevant to compare all kinds of languages to see whether there is a preference for the preservation of some kind of structures; it would also be important to reflect on why there are differences and/or similarities in the deviations and preservations made and to search for possible language universals.

Moreover, seeing that chat discourse tends to privilege the phonetic factor (above etymology, for example), another possible study could be based on the principle that chat discourse is pre-creating the orthography promoted by new spelling reforms.

It is essential to keep analysing chat discourse as it continues to be a great challenge for scholars all over the world.

CONCLUSION

In this chapter, we have analysed one type of Portuguese chats, which:

- Happens in real time (synchronous communication);
- Has multiple people speaking/writing at the same time, though all of them can be heard/read;
- Requires the use of a nickname;
- Possesses contextual opacity – as chatters do not know the social status of the person who is interacting with them, they tend to

be informal; moreover, they need to express all contextual clues verbally.

We have explored how this type of chat is generally structured and how the turn-taking process develops: its structure is similar to face-to-face interactions and it makes use of general (and even new) cohesion and coherence mechanisms. The turn-taking process is mostly mechanic – you give out your turn whenever your message appears on the screen.

Mainly young net users seem to be creating a new language, which is required by synchronicity.

However, this supposedly new language is not really new: chatters seem to be making language changes according to their intuitive knowledge. In fact, though they may have not learnt about different scripts, they are creating a writing system which may be considered closer to an ideal one by keeping consonants and deleting vowels like in consonantal scripts, using logograms like in logographic scripts, and keeping each syllable represented like in syllabaries. In spite of not being aware of the process of learning to spell, they are reproducing some errors that children are used to making in order to write the sounds that are actually heard, thus creating a more phonemically transparent alphabetic system. Even though they may not explicitly know the kinds of structures most frequent in language acquisition, they sometimes delete more marked structures (such as codas and complex onsets), and preserve more unmarked ones (such as the simple onset, though not the nucleus).

Consequently, the deviations from standard writing in chat discourse should be studied as an access to intuitive knowledge.

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KEY TERMS AND DEFINITIONS

Chat: Form of computer-mediated communication that occurs in real time or synchronously. Communication develops by sending a message online to another person connected to a computer at that precise moment. There may be many divergences in different types of chat (in terms of formality, anonymity, message construction, topic, amongst others).

Cohesion and Coherence: They both contribute to text articulation. Cohesion is related to the grammatical and lexical elements that link the parts of a text. Coherence can be thought of as how meanings and ideas are organized and sequenced.

"Errors" or Deviations from Standard Writing : Language items that do not follow the norms of standard writing. These norms include spelling rules as well as typography conventions, such as capital letters and punctuation marks.

Intuitive Knowledge: A set of interiorized principles/notions about one's native language. They are part of one's internalized grammar and they make up one's linguistic competence (according to Chomsky, 1986). This knowledge is related to phonology, morphology, syntax, semantics, and pragmatics.

Language Acquisition: The process of naturally learning the principles and units of a language by being exposed to it. Unmarked structures and sounds are acquired first.

Markedness: Describes the languages' trend to create certain structures and avoid others. Unmarked structures are more common cross-linguistically and they are the ones that infants acquire first. The syllable format CV (Consonant and Vowel) is the most unmarked one and is present in all languages.

Spelling Rules: A set of conventional norms to represent a language in written form. Spelling rules are formally learnt in schools.

Writing System: A set of signs used to represent units of language. If morphemes or words are represented, this writing system is called logographic/morphographic; if the sounds or phonemes are represented, it is an alphabetic/phonographic writing system.

Chapter 18
First Person Pronouns in Online Diary Writing

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ABSTRACT

It is well-known that first person pronouns have a particularly important role to play in conversation. "Online diary" style of writing is less well understood and the role of first person pronouns in that style invites further study. In this chapter the authors explore these pronouns in UK and US online diaries, paying particular attention to frequency and collocational relations. In previous corpus-based studies of English genres, first person pronouns have tended to be considered as one larger set without differentiation. The authors find, on the contrary, that the differences between these forms can be very revealing in the way they distinguish online diary style of writing from other genres such as conversation and fiction writing. The findings underline the need to respect inflectional variants of lemmas as objects of study in their own right.

INTRODUCTION

Online diary writing is one of a number of new genres of written language which have emerged with the increasing accessibility of the Internet. The proliferation of websites which encourage such writing means that data from this genre is relatively easy to obtain for the purposes of academic study. Online diaries are, in fact, written and published on the Internet in the expectation that they will be read by an online audience, as opposed to traditional diary writing which typically is intended to remain private. Presumably, online diary writing tends to have a high degree of author involvement which will translate into relatively high frequency of usage of first person pronouns. Consequently, we focus here on the usage of the first person forms of English pronouns in a corpus of online diary writing. In the approach adopted here, we turn attention away from the lemma (e.g., the category of "first person pronoun") to the individual inflected forms of that category (*I*, *me*, etc.), reflecting a new interest among

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linguists in the differential behaviour of the word forms that make up a lemma.

BACKGROUND

Recent case studies of verbs in English have revealed interesting patterning around particular inflected forms, as opposed to lemmas, suggesting that investigating language at the inflectional level is a promising line of inquiry (cf. Newman & Rice, 2004; Newman, in press).[1] Scheibman (2001), in a study of informal conversation, found that first person singular (1SG) and second person singular (2SG) subjects occur with particular verbs of cognition with a relatively high frequency (*I guess*, *I don't know*, *you know*, *I mean*) reflecting the particular pragmatic role played by these phrases in conversation. Scheibman (2001, p. 84) also emphasizes the need to examine 'local' patterns in grammatical research and cautions against relying just on the superordinate grammatical categories (person, verb type, tense etc.). In a similar way, Tao (2001, 2003) discusses the prominence of the simple present tense forms of the verb REMEMBER, used with a first person singular subject (*I remember*) or a null subject (*remember*), again demonstrating the importance of studying particular inflected forms of a verb, rather than just the lemma. The Scheibman and Tao studies both point to the subject form of the 1SG pronoun in English, *I*, as playing a particularly important role in conversational style.

In light of this previous research, we decided to explore the differential behavior of the first person pronouns in different genres in English. First person pronouns are well known as forms which indicate "an interpersonal focus and a generally involved style" (Biber, 1988, p. 225) and which play an important role in distinguishing spoken and written registers (see, e.g., Biber, 1988, p. 225 for further references). Not surprisingly, Biber (1988) identifies the class of first person pronouns as a "linguistic feature", worthy of inclusion in the 67 features which form the basis for his corpus-linguistic analysis of stylistic variation in English. This class consists of *I*, *me*, *we*, *us*, *my*, *mine, our*, *myself*, *ourselves*, *ours*. Without disputing the value of grouping these forms together as part of Biber's (1988) study, we believe that there is much to be gained, too, from investigating properties of the individual "inflected" forms of this class, in addition to studying these forms collectively, as it were, at the level of the lemma. For the purposes of this study we restrict ourselves to *I*, *me*, *my*, *we*, *us*, and *our*.

We chose to make online diary writing a particular focus of this study. Diary writing, generally, has been a relatively neglected kind of writing in corpus studies. It is not a type of writing that is represented in the British National Corpus (BNC), for example. This is perhaps understandable, since it is writing which prototypically would be for the benefit of the writer alone and so not generally accessible to others. Biographies, personal letters, and email, all of which are represented in the BNC, bear similarities to diary writing, though one would expect a number of differences, too, in style, content, and audience.[2] Online diary writing cannot be equated with traditional diary writing intended only to be read by its author. Nor can it be equated with literary outputs which see publication through established presses. Helen Fielding's 1996 novel *Bridget Jones's Diary*, for example, has a complex origin, arising out of newspaper columns written by Fielding, fashioned into a first-person narrative. Additionally, the author herself points to Jane Austen's *Pride and Prejudice* as a source of inspiration for the book.[3] While *Bridget Jones's Diary* is of interest in its own right, of course, and may even be, in some ways, a model for particular online diarists, its complex origin makes it rather different from typical online diary writing. McNeill (2003, 2005) provides an illuminating review of online diary writing and how it compares with traditional forms of diary writing. She draws attention to the manner in which "the assertion of identity that the online diary performs demands a response, a witness for the confession to be enacted" (McNeill, 2003, p. 36), and how "for online diarists, who write explicitly to be read, the absence of an (active, responsive) audience would be a significant blow" (McNeill, 2003, p. 36). The online diarist, in other words, is not engaged in a purely private, secretive form of writing, but is writing with a view to being read and understood and responded to by an audience, even if it is largely an anonymous one. While feedback to authors can be a significant part of many kinds of internet-based communicative acts (cf. Stefanone & Jang, 2008; Miura & Yamashita, 2007; Lenhart & Fox, 2006), we feel it is particularly relevant in online diary writing, as argued by McNeill above.

THE CURRENT STUDY

Online diary writing, being so accessible, presents a unique opportunity for study. It seemed to us that diary writing would be a particularly interesting genre for the study of first person forms, with perhaps greater first person involvement than in any other genre (cf. the advice offered on style quoted in footnote 2). The online diary corpora used in this study, as well as a number of other studies based on diary writing, have already yielded results on subject ellipsis which are relevant to understanding styles employed in such writing (Teddiman & Newman, 2007; Haegeman & Ihsane, 1999, 2001). We allow ourselves to use the term "genre" to refer to online diary writing, using the term in the relatively fuzzy way advocated by Lee (2001, p. 47), i.e., to "describe groups of texts collected and compiled for corpora or corpus-based studies".

The Online Diary Corpora

The Diary corpora were constructed from publicly available online weblogs (blogs) hosted by a blogging service called Livejournal (http://www.livejournal.com) between July 2006 and December 2006.[4] Users were randomly selected from within two geographical regions, the United States and the United Kingdom. All journals included in the corpus had been recently updated and active at the time of data collection, and included information about the sex and age of the user wherever possible. Fifty online diaries were selected within each region, with approximately 2,000 words collected per user, comparable to the sampling size used for individual texts in the International Corpus of English. The US and UK sub-corpora each contain approximately 100,000 words (US: 102,781, UK: 102,216), with a total of 204,997 words in the whole corpus. Hyper-text mark-up, journal tags, and timestamps were removed from the text and are not included in the word counts.

As noted above, the selection of online diaries was random in this sample. Nevertheless, in both the US and UK populations, more women were identified as diarists than men (65% vs. 35% over both populations). While age varied widely (16-63), the mean age of bloggers was 25 (24.7). See Table 1 for a breakdown of these population demographics.

First Person Forms

As a first step towards understanding the distribution of the singular forms, we summed up the number of *I*, *me*, *my*, *we*, *us*, and *our* tokens which occurred in the diary corpora and compared these results with totals of these forms in four well known and often used genres in corpus linguistics: conversation, fiction, news, and academic writing. For these four genres, we used the four 1 million-word corpora of BNCBaby, representing a sampling of the BNC World Edition, referred to here as Dem ("spoken demographic", i.e., conversations), Fic (fictional prose), News (newspaper texts), and Acad (academic writing from periodicals and books). These are also the genres which figure prominently in Biber et al (2000). In the case of the diary corpora, some pre-editing of the raw

Table 1. Demographic breakdown of the diary corpora by region, gender, and age

	Users (#)	Age		Total Words
		Min – Max	Mean	
US	**50**	**17 – 63**	**24**	**102781**
Male	16	17 – 41	24.1	33135
Female	34	17 – 63	24	69646
UK	**50**	**16 – 52**	**25.4**	**102216**
Male	19	18 - 45	26.7	38942
Female	31	16 – 52	24.7	63274
Total	**100**	**16 – 63**	**24.7**	**204997**
Male	35	17 – 45	25.5	72077
Female	65	16 – 63	24.3	132920

text was done, replacing contracted forms (*I've*, *I'm*, *I'll*, *I'd* etc.) with their full forms to facilitate easier searches. Some occurrences of these contractions were spelled without the apostrophe in the original blogs and these tokens were normalized to ensure that the *I* form was counted correctly in these cases.

Female authors used first person singular pronouns more often than male authors, although the general patterns between the pronouns were the same for both sexes. This result did not extend into the first person plural forms. These results contrast with those of Herring and Paolillo (2006), who found that female authors favoured *we* over male authors, but who did not find any differences in the use of first person singular *I*. These differences could stem from journal selection criteria. In their selection of journals, Herring and Paolillo (2006) preferred those that contained examples of both diary writing and filter-type writing. The distinction made between the two is that diary entries should refer to the author's experiences, while filter entries refer to events that do not directly involve the author. Although all of the journals collected for this study were of the diary type, we did not control for differences between individual diary-type and filter-type entries, and it is possible that male authors were more likely to include filter-type entries than women in this sample. There was little variation in pronoun use by age, although the oldest users (30+) tended towards using first person pronouns less frequently than the youngest users (<20). This might be taken to indicate a more self-referential style for teenage users than for older users. However, this result may be influenced by the smaller sample size available for older authors.

The category of "first person" clearly stratifies the corpora along a continuum Diary > Dem > Fic > News > Acad, correlating with the relative frequency of first person pronouns in these corpora. Relative frequency of all first person pronouns decreases steadily as one moves through this continuum: 77.82 tokens per 1000 words (Diary) > 54.72 (Dem) > 24.84 (Fic) > 9.54 (News) > 5.88 (Acad). The continuum corresponds, in a general way, to a degree of personal involvement in the text and it is not surprising that the Diary genre occupies one end of this continuum. The result confirms what is already known about the first person forms as they occur in the better known genres such as those represented in BNCBaby. Biber et al (2000, p. 333) note, for example: "With the exception of *we/us*, forms which refer to the speaker and the addressee (*I/me*, *you*) are far more common in conversation (and to a lesser extent fiction) than in other registers." Furthermore, it is the *I* form which dominates as the inflectional form in all genres. This fact is in line with Aarts' (2004, pp. 36-38) finding that that personal pronouns occur significantly more frequently in subject positions than in non-subjects positions in all categories of text.

To discuss this variation in greater detail, we will proceed by investigating each of the first person forms in their own right, rather than treating them as one class. Furthermore, we will examine the degree of variation within each corpus to ascertain the level of internal consistency within each genre.

Frequency of Singular Forms

The discussion above points to Dem and Fic as being the two genres which are closest to the diary corpora and hence most interesting to compare with these diary corpora. We proceeded, therefore, to explore the behavior of *I*, *me*, and *my* in more detail in the Diary, Dem, and Fic corpora. Figures 1-3 are "notched" boxplots of the relative frequencies of these forms in the UKDiary, USDiary, Dem and Fic corpora. The vertical length of a box corresponds to the amount of variability – the larger the box, the greater the spread of the data. The dark horizontal line in a box represents the median and the length of the box represents the difference between the 25th and 75th percentiles. Maximum and minimum values (apart from any outliers) are indicated by the extremes of the whiskers. Where the notches about two medians do not overlap, the medians are, roughly, significantly different at a 95% confidence level (cf. McGill, Tukey, & Larsen, 1978; Potter, 2006). The boxplots of *I* in Figure 1 suggests similar behaviour of *I* in UKDiary, USDiary and Dem, though the notches in the three boxes corresponding to these three sets of data do not obviously overlap, meaning that there would appear to be a significant difference between the three corpora with respect to this parameter. There is, of course, no overlap between the notches of any of these three datasets and that of Fic, confirming a significant difference between Fic and other corpora. Boxplots of *me* in Figure 2 show overlapping notches for UKDiary and USDiary, on the one hand, and overlapping notches for Dem and Fic on the other hand. Figure 2 shows clearly how the behavior of the *me* form separates out the diary corpora from the others. Figure 3 summarizes the distribution of *my* and suggests a division between the Diary corpora and the other genres represented by BNCBaby, similar to what is seen in Figure 2. However, the non-overlapping (or borderline overlapping) notches indicate significant differences for all comparisons of the corpora. Summing up, then, the boxplots show that the frequency data for *me*, more so than for *I* and *my*, is consistently similar in the diary corpora and most effectively differentiates the two diary corpora from both Dem and Fic.

Contextual Patterns of Singular Forms

Although the frequency of *I* in the Diary corpora is subject to some variation, its mean frequency in both Diary corpora is higher than in other genres. This is not surprising, given the overall expectation that in an online journal the author is primarily engaged with reflections on their own life. More specifically, the online diary style offers opportunities for authors to indulge in sustained and uninterrupted confessional outpourings which one would be unlikely to encounter in conversation. The excerpt in (1)–a continuous stretch of writing in one diary entry, including misspellings such as *sentances* for *sentence* –illustrates this kind of style.

(1) From UKDiary

Figure 1. Boxplots of I in four corpora

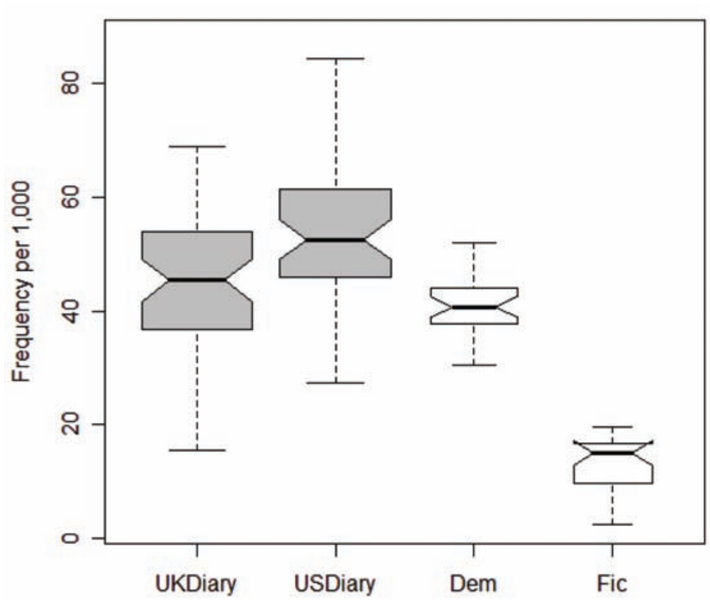
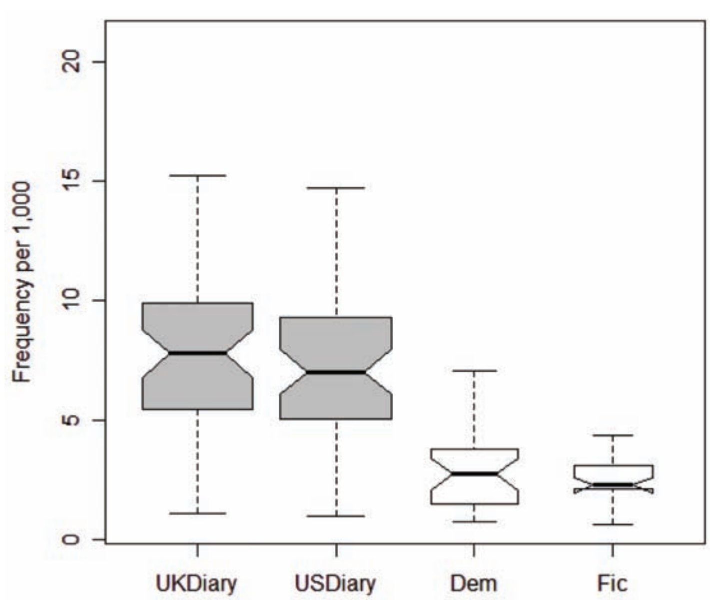


Figure 2. Boxplots of me in four corpora

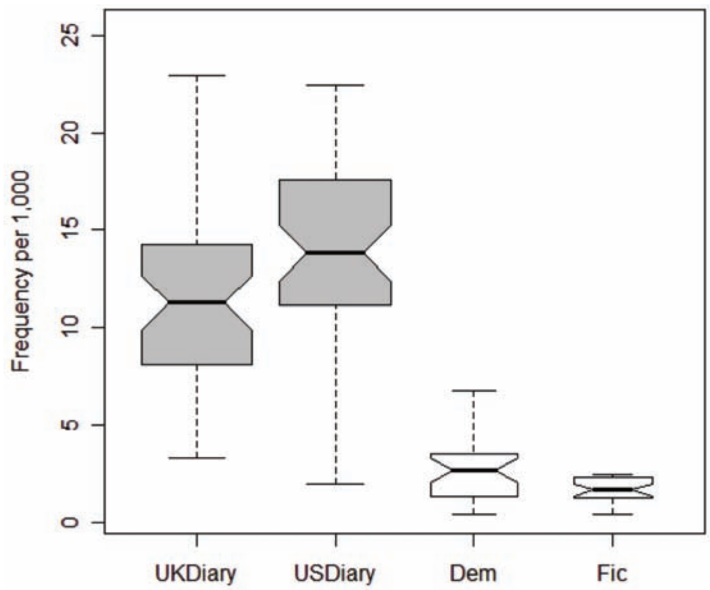


Who am I exactly?

I know.

I know who I want to be. And if you want to be something, then surely deep down, you ARE that person.

Figure 3. Boxplots of my in four corpora



I don't know how to talk properly, I can barely get my sentances out.

I stand there stuttering & repeating myself and by the time I say what I wanted to, the person is sure to have lost interest.

I spent a good part of my life shy, and I got over that. Now i'm back there again & i'm scared of the outside world.

I'm scared of being myself incase I get shouted at.

I'm scared to show people my writing because as soon as I proofread for their eyes my words are tangled & clumsy.

Since it is the *me* form which best differentiates diary corpora from the others, we decided to explore this form further by studying some of the contextual patterning with *me*. We selected UKDiary and Dem corpora for this purpose, since they are both based on British English. We used Wordsmith Tools (Scott, 2004) to retrieve and display collocates of *me* in the two corpora in a window of three words to the left and three to the right (L3-R3). In the case of the Dem corpus, which has a considerable amount of meta data in the XML markup, we made use of Wordsmith's options to ignore extraneous markup in calculating collocates and statistics.

Tables 2 and 3 show the top ten collocates for *me* in UKDiary and Dem respectively. The "Word" column contains the collocates, which are calculated around the search word, *me*. The collocates are sorted by descending strength of association (the "Relation" column), as computed by Wordsmith Tools using the log likelihood measure. One difference that can be seen immediately is that in Dem the top collocates are consistently concentrated to the left of the search word in the L1 position, whereas this is not the case for UKDiary. So, for example, in the UKDiary *to* occurs with equal frequency in the L2 and R1 positions as a collocate for *me*;

Table 2. Top 10 collocates of me in UKDiary sorted by log likelihood score for relation, calculated over L3-R3

Word	Relation	Total	L3	L2	L1	R1	R2	R3
to	574	197	23	**54**	36	**54**	15	15
and	368	153	26	26	6	**63**	16	17
for	260	80	5	7	**40**	13	6	9
you	210	66	20	**27**	0	4	11	4
let	174	24	1	0	**22**	0	1	0
told	154	21	2	0	**18**	0	1	0
he	145	39	8	**18**	0	3	6	4
that	135	56	12	**16**	0	13	5	10
with	129	48	1	1	**32**	6	6	2
a	112	77	9	2	0	**35**	15	16

and, as a collocate of *me*, is concentrated in the R1 position etc. The two displays thus point to a relatively diffuse kind of collocational behavior for *me* in the UKDiary.

Strong collocational relationships with *to*, *for*, *with*, *told* and *let*, all in the L1 position, can be observed in both Tables 2 and 3. *Told* and *let* in this position suggest that *me* is most likely functioning as the object of the verb and, simultaneously, as the subject of a following infinitival clause with the infinitive following the *to*, as in *Mum told me to visit her*. The prevalence of this construction serves as a reminder that the "object" form, *me*, cannot be equated with purely a patient (as opposed to agent) role in English. Indeed, the results in Tables 2 and 3 suggest that the agent role is a conspicuous and important semantic role for *me* in both corpora. *For* and *with*, also among the top ten collocates of both corpora, may also be functioning in the L1 position to introduce infinitival clauses, suggesting that *me* in at least some of these cases may be functioning as the understood subject of an infinitival clause.

Table 3. Top 10 collocates of me in BNCBaby Dem sorted by log likelihood score for Relation, calculated over L3-R3

Word	Relation	Total	L3	L2	L1	R1	R2	R3
to	1,167	485	0	0	**302**	175	8	0
told	730	109	0	0	**109**	0	0	0
for	609	213	0	0	**175**	33	5	0
give	579	115	0	0	**111**	4	0	0
let	543	89	0	0	**88**	1	0	0
tell	439	88	0	0	**87**	1	0	0
with	354	132	0	0	**115**	17	0	0
want	282	102	0	0	**88**	13	1	0
gave	177	29	0	0	**29**	0	0	0
help	170	33	0	0	**30**	3	0	0

A point of particular interest concerns the collocational patterning of *to* and *me* in these corpora. In the combination *to me*, *me* is clearly the object of the preposition *to*. As part of the combination *me to*, we would be expect that *me* is functioning as the understood subject of an infinitival clause, as discussed above, and as found in *Mum told me to visit her*. Table 4 shows 20 sample concordance lines from UKDiary illustrating the *me to* combination with the infinitival construction, including the unusual construction *she is proud of me to say…* in line 4. Note that the *me to* combination is more frequent than the *to me* combination in UKDiary (54 *me to* vs. 36 *to me*), but less frequent than *me to* in Dem (176 *me to* vs. 309 *to me*). It can be seen, then, that the infinitival clause construction with *me* as the understood subject is a feature of both UKDiary and Dem, though more associated with the former than the latter.

Frequency of Plural Forms

Plural forms of the first person pronouns are much fewer in number in the corpus and we will have less to say about these forms as a result. Once again, it is the subject form which dominates. Relative frequencies for first person plural *we* in the corpora are, in descending order: 9.416 tokens per 1,000 words (Dem) > 4.785 (Diary) > 3.45 (Acad) > 3.219 (Fic) > 2.643 (News). Here it is the Dem genre which evidences the highest use of *we*. This is quite different to what was found with the *I* form, where the Diary genre showed the highest relative frequency.[5] The results for *us* and *our*, on the other hand, show that these forms are indeed most frequent in the Diary corpora, similar to what was found with the corresponding singular forms.

Contextual Patterns of Plural Forms

It is not difficult to imagine why *we* is more frequent in Dem than in the diary corpora. Conversations provide continuous opportunities for jointly referencing the speech act participants, and for planning joint activities between them. Diary writing is different in both these respects. Even if online diary writing, as explained above, demands eventual "witnesses" for the writing, such witnesses are anonymous and virtual and not viable participants in future joint plans on the part of the author. One manifestation of the difference which can be easily quantified is the use of

Table 4. Sample concordance lines for me + to in UKDiary

And I have to text Wendy cos Mum told	me to	visit her. Lah. I'm gonna go read my book.
wasn't goimg to go, but instinct told	me to,	& I was glad I did. We had loads of fun
Anyway time for	me to	stop now because i need to go get milk
Shes really proud of	me, to	say that i was going through a pretty bad time
Mum really wants	me to	take Maths and maybe another science again
plot points that _peter had asked	me to	try and get across.
I want the doctor who sees	me to	be someone I am paying to listen to me
kept logging out unexpectedly, causing	me to	lose conversations and file transfers
An audience, waiting for	me to	slip & fall off this very tightrope.
to drag me out of my house and force	me to	be sociable, something I sorely need
LiveJournal is just too annoying for	me to	bother going through the whole thing
really stoned, and the one asked	me to	roll them a joint, i asked if they wanted it
What would you want	me to	say to you? It can be anything, but be honest

tag questions with *we*, as in *we don't have to go all the time, do we?* Tags with *we* have a natural place in conversation where they reference first and second person speech act participants. One would not expect them to be a feature to the same extent in the Diary corpora. Indeed, a search on *we?* (including *are we?*, *did we?*, *will we?*, *should we?* etc.) in Dem yielded 437 tokens, representing 4.58% of the total number of *we* forms in Dem. There is not a single instance of *we* used as a tag in this way in either UKDiary or USDiary, even without a question mark after the *we*. Although the *we* tag, by itself, does not account for the sizeable difference in relative frequencies between the Diary corpora and Dem, it is indicative of the different modes of writing in the two genres. In the Diary corpora, *we* refers either to the author and others in the author's own life, as the author reflects on past events, as in the examples in (2), or are impersonal uses of *we* applying to humankind, as in (3). The Diary corpora have relatively little of the 'inclusive' use of *we* which we find in Dem, illustrated in (4).

2. *we* = author and author's circle, from USDiary
   a. *For the first time ever, New Years was actually a "family holiday" as in we actually did something instead of the kids going to a friends house*
   b. *Then ryan johnson came over with my favorite juice and we all drank gin and juice while playing monopoly. it was such a good time.*
   c. *God and I were spending some time together and He said to me, "Son, while we are here, do you think I could catch up on some things? I've been pretty busy*
   d. *And so we sat down on the couch in my living room, he clicked on the TV and we began to watch some prayers.*
3. *we* = human beings, from USDiary
   a. *Sometimes we think we need others to help us and we become dependent on them*
   b. *Each action we take sustains a pattern or breaks it. Each word we speak reinforces things as they are, or moves toward change.*
   c. *It's that kidlike innocence that pulls us back into the real reality of it all: we can fight all we want, but we are only delaying the celebration.*
   d. *Others stay awhile and leave footprints on our hearts and we are never, ever, the same*. (cited as a quote within an entry)
4. *we* = author and addressee, from Dem
   a. *Shirley's sort of getting on to you a bit I think we'd better make a move.*
   b. *We're not there yet are we?*
   c. *Oh which way are we approaching it?*
   d. *We don't want to rush them eating it do we?*

Responses to Online Diary Entries

In Section 1, we referred to an unspoken expectation on the part of online diary writers that there will be a "witness to the confession" and that online responses and comments on such diaries are, in a sense, integral to the full enactment of online diary writing. It is of some interest, therefore, to study the use of pronouns in these responses. In particular, one may inquire as to whether pronoun use in responses to online diary entries mirrors the use of pronouns in the diaries themselves, or whether their use is more comparable to that found in Dem. More so than the diary itself, the responses might be expected to engage with an addressee (the diary author in the case of the response writer) and hence we might expect to find more prevalent use of the second person forms in responses than in the main diary texts.

In order to determine the nature of pronoun use in our diary responses, we revisited the online diaries making up the Diary corpora approximately one year after initial data collection. We collected all available comments posted in response to the diary entries recorded in the corpus. One year later, twenty-one of the original diaries were no longer available, eleven of those in UKDiary and ten in USDiary. The summed corpus of responses is imperfectly balanced, with 132,831 words recorded in the UKDiary responses and only 26,257 words recorded in the USDiary responses (159,088 in total). Overall, the average size of the comment log for each author was 2,376 words (UKDiary: 3,406, USDiary: 691). However, the UKDiary responses benefit from a prolific series of comments in a single blog resulting in over 60,000 words, and without that series of comments, the UKDiary average falls to 1,900 words and the overall average falls to 1,620. A final caveat to these data is that, given the nature of online communication, there is no guarantee that responders hailed from the same geographic location as authors. All comments are in English, but while subcorpora have been coded as "USComments" and "UKComments", referring to the location of the blog author, the location of the commenter is ultimately uncertain. It is unlikely, however, that all respondents were unknown to the diary author, given that many responses included references to emotional connections to the author (e.g., *I miss you*, *I love you*) and to sharing a physical location with the author (e.g., *it was good to see you again*).

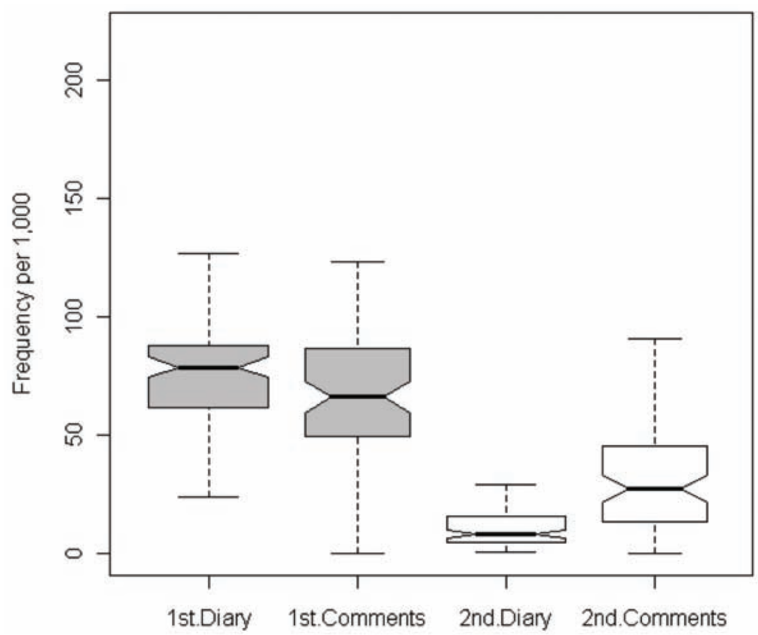
As in the Diary corpora, first person singular forms are the most commonly occurring pronouns recorded within the comments. *I* occurred in the comments about as often as it occurred in UKDiary and USDiary, if slightly less frequently. However, there was great variation recorded in USComments, where first person singular pronouns were sometimes very frequent in the responses to a single diary, and sometimes completely unattested. This high variability may be a reflection of the smaller sample size available for USComments.

Returning for a moment to UKDiary and Dem, recall that *me* acted as the understood subject of infinitival clauses in *me to*, and that this behaviour was relatively more frequent in UKDiary than in Dem when compared to the use of *me* as an object following a preposition in *to me*. If we examine UKComments, we find that it patterns more closely with Dem (*me to*: 14 vs. *to me:* 26). Here, it appears as if the writer and responder are engaged in a dialogue that more closely approximates conversation than is observed in diary text.

My occurred more frequently in the Diary corpora than in the comments for both UK and US regions, and one might imagine that this difference is due to the relative degree of self-reference in the text. While a diary entry is, by its nature, self-referential, the comments collected were written as responses and not necessarily as equivalent personal commentaries on the same topic. First person plural forms patterned similarly to their UKDiary and USDiary counterparts, although there were no recorded instances of *our* in USComments.

Following *I*, *you* was the most frequent pronoun recorded in UKComments and USComments. We find that in the recorded comments, *you* is used significantly more frequently than it is used in the main diary text (Figure 4). This is perhaps unsurprising, as comments are directed towards the original author and the content of his or her diary entry. Common word clusters include *I miss you* (11), *I think you* (11), *if you want to* (9), *if you don't* (9), *you have to* (9), *agree with you* (6), *hope you feel better* (6), and *you could always* (5). Responses generally referred back to the original diary entries, or to a thread present in the comments. For example, a response such as *hope you feel better* relates directly to posted material when an author tells his audience that he has been unwell, while phrases like *I (so, absolutely, heartily) agree with you* express solidarity with the author and his or her opinions, stated immediately previously. In some cases, particularly

Figure 4. Boxplots of first and second person in Diary and Comments corpora



for *I miss you*, this sentiment was expressed both by the commenter and by the diary author, in a secondary response to the commenter.

In both the original diary corpora and in the comments corpora, the first person is more commonly observed than the second person. However, in our sample of responses, the second person is used more often in both UKComments and USComments than in either UKDiary or USDiary. The frequency of *you* in comments reflects the role of feedback to authors, and to a certain extent, a type of dialogue between the original author and his audience that is not so completely dissimilar from conversation.

FUTURE TRENDS

Throughout this study, we have compared data from recognized genres, such as fiction and conversational speech, to a genre that is growing up out of communicative opportunities available on the Internet. Through displayed patterns of pronoun use, we can see that characteristics displayed in online diaries mark this as a genre in its own right. The online diary model allows, and as we have discussed, may indeed *require* an audience. While entries might not be specifically directed towards an audience, an audience is, at the very least, implicit in the diary's availability online. Along the dimension of pronoun use, responses to online diaries are not dissimilar to spoken conversation. Online diaries, then, can be considered to be one of several emergent forms of communication that are made possible by a digital infrastructure, and given their popularity, are a thriving component of the new media. Expanded research in this area might focus on determining further characteristics of this and other internet-based genres, such as email, or other blog types (e.g., political versus personal). Such research may also help to compare the types of communication between correspondents. Finally, from our perspective, our results further the notion that the study of inflectional forms of words and categories is vital for greater understanding of language use. Future studies that focus on inflected forms, both of categories (e.g., *I* for pronouns) and of words (e.g., *remembers* as a part of *remember*), will be able to identify patterns of use that go beyond the level of word lemma. In this way, we can generate a more complete description of language use across genres, and in turn, increase our understanding of language use in a digital communicative world.

CONCLUSION

Clearly, the individual inflectional forms of first person pronouns have different roles to play in distinguishing the genres discussed here. In keeping with the "personal involvement" character of online diary writing, the singular first person forms are more frequent in the Diary corpora than in other genres. Even so, there is considerable fluctuation in the use of these pronoun forms within the Diary corpora. While the total number of *I* forms in the diary corpora exceeds that of the other corpora, it is the *me* form which shows the most consistent behaviour within the UKDiary and USDiary and which most effectively differentiates the diary corpora from other genres. Partly, these results reflect a confessional style of expression which is not found to the same degree in the other genres. The use of *me* as the understood agent of a following infinitival clause seems to be relatively more common in the Diary corpora, compared with, say, the conversational corpus. Of the first person plural forms, it is *we* which behaves most consistently within the Diary corpora and differentiating these corpora from the other genres. Diary writing does not employ the 'inclusive' use of *we* to the same extent as is done in conversation and this is one factor leading to the higher frequency of *we* in conversation compared with diary writing.

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KEY TERMS AND DEFINITIONS

Boxplot, Box Plot: A standard graphical visualization of numerical variation in data, including 5 key statistics: median, 25^{th} and 75^{th} percentiles, and maximum and minimum values present in the data. "Notched" boxplots allow quick inspection of significant differences in variation between two or more datasets. Where the notches do not overlap, there are significant differences between the datasets.

Collocate: Collocates of word *x* are those words that occur in the environment of *x*, within a text. For example, in the sentence *It is time for me to go*, *go* is a collocate of *me* at position R2 (second word to the right of *me*).

Corpus: A collection of written texts or transcriptions of spoken language. Now understood to be an electronic collection.

First Person: In English linguistics, first person refers to the pronouns *I, me, my, mine, myself* (singular), *we, us, our, ours, ourselves* (plural).

Genre: A group of texts collected for corpus-based studies. Typically, collected texts are drawn from a cohesive domain, e.g., press, religion, fiction, academic, private letters, and diaries.

Lemma: A representation of a word that subsumes all its inflected forms. For example, the lemma verb sing includes the inflected verb forms *sing, sings, singing, sang, sung*.

Online Diary: A type of weblog (blog) that is used by the author as a personal journal but is publicly available for others to view and comment upon. Differs from other blog types in that the subject matter is grounded in the experiences of the author, and is not thematically based.

Second Person: In English linguistics, second person refers to the pronouns *you, your, yourself, yourselves, yours*.

ENDNOTES

1 Stubbs (2001, p. 99) draws attention, in passing, to the issue of investigating different inflected forms, as opposed to lemmas though the idea is not further explored.

2 One website offering advice on writing diaries recommends, along with many other tips: "Think of a diary as a conversation with someone. When read, the words sound like someone talking to you. Think of sharing your thoughts about when and where the event took place, how you felt about it, "gossip" or comment about other people and so on. Look at the situation from different angles." (Power of the Real World website http://english.unitecnology.ac.nz/resources/units/real_world/diary.html) As far as pronoun usage is concerned, the same website advises that diaries are "written in first person I".

3 "I shamelessly stole the plot from *Pride and Prejudice* for the first book. I thought it had been very well market-researched over a number of centuries and she probably wouldn't mind" (words attributed to Helen Fielding, Daily Telegraph 11/20/1999, cited by Salber, 2001). Hence, the title of Salber's article: "Bridget Jones and Mark Darcy: Art Imitating Art…Imitating Art".

4 McNeill (2003, p. 28) reflects on a possible genre distinction between "online journal" and "weblog", with online journals being more meditative and processed and weblogs being more immediate and "off-the-cuff". McNeill does not accept any strict separation of the two, noting: "In reality, though, even the scantiest of blog narratives incorporates 'trademark' diary features, with regular, dated, entries that focus on the diarist/narrator's experiences and interests." (McNeill, 2003, p. 29).

5 This result does not accord with Biber et al's (2000, p. 333) observation, cited above, that the *we* form is not far more common in conversation than other genres. In the corpora studied here, *we* is approximately twice as frequent in Dem than it is in the other genres.

Chapter 19
A Digital Forensic Analysis of Advance Fee Fraud (419 Scams)

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ABSTRACT

One of the significant implications of digital communication is the receipt of unsolicited emails. Several such mails share common features which characterize what has now come to be known as Advance Fee Fraud (AFF) mails or 419 mails. In particular, this chapter presents a structural analysis of the content of email correspondences for linguistic clues to help detect scams. Using a qualitative approach, the data comprising several unsolicited emails were analyzed for linguistic features vis a viz standard features of email communication and Standard English (SE). Findings revealed that the language of AFF emails share common linguistic features in aspects such as address, message, content construction, English as Second Language (ESL) errors, and non-native English features. The findings of this study enrich our understanding of language use in digital communication, and equip individuals and investigators with linguistic tools to determine authenticity through digital forensic examination.

INTRODUCTION

There is no doubt that digital technology has played a crucial role in the development of AFF. Today, AFF has come to be synonymous with the use of the Internet, hence the nickname of its perpetuators, *yahoo yahoo boys*. The AFF also known as Nigerian Advance Fee fraud or 419 named after the relevant section, Section 419 of the Nigerian Criminal code that prohibits the fraud. Briefly, AFF refers to the act of deceiving potential clients to part with their money or valuables in exchange for a substantial profit or returns. Based on a statistical report, AFF is referred to as the "world's most successful scam" (419 Unit, 2007). According to the report, AFF recorded the highest number of organized perpetuators, 300,000 as at 2006 and the number is growing at the rate of 3% annually. AFF also accounts for the highest number of victims, and is responsible for the highest amount of losses globally, over $28 billion as at 2006.

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AFF, like other fraud related crimes is a type of scam and scamming is a phenomenon which has been around for centuries. AFF is not restricted to cyber crime; rather it is "mainly a confidence fraud using all communication resources available". AFF is reported to have originated from Nigeria, an English as a Second Language (ESL) context. Yet, most of the studies do not examine AFF emails from an ESL perspective. One of the content clues of AFF emails is the 'uniqueness of the contact'; that is, how and why someone would single out one victim for contact, and why the victim does not ask him/herself why a widow or son of a slain African leader should contact him/her rather than some more important individual.

The aim of this chapter is to provide a basis for analyzing the language of 419 emails from an ESL perspective. The objectives are 1) to analyze the language of AFF emails for common linguistic features; 2) to compare these features with those of standard authentic emails; 3) to examine the nature of the features with those that characterize ESL and non-native English varieties; and 4) to provide more effective linguistic tools to investigate and detect email scams.

BACKGROUND AND LITERATURE REVIEW

Surprisingly, the 419 scam has not attracted a lot of scholarly attention (Carlson Analytics, 2008) nor has the phenomenon benefited from a comprehensive country specific report (Peel, 2006). Whereas Nigeria is known to be the origin of the phenomenon, most studies do not reflect the contributions of Nigerian literature nor perspective. For example, publications by Nigeria's Economic and Financial Crimes Commission (EFCC) provide valuable information from Nigerian and West African perspectives. Two other publications written by Charles Tive (2006) and Samuel Ifeagwu (2006) respectively provide general information. An EFCC publication edited by Ribadu et al (2007) provides the perspectives of Nigeria and neighboring West African states on the current trends of AFF in West Africa. Tanfa (2006), in a doctoral study provides a criminology perspective of AFF.

A Brief History of AFF

The history of AFF mails dates back to 1970 and early 1980 when there was no Internet and the only available means of correspondence was through the postal service. According to reports, the perpetuators shifted from using print to fax messaging in the 1980s and 1990s, and followed it up with an explosion in the use of email by 2000. Tive (2006) traces the origin of AFF back to Nigeria's unstable political history and stunted socio-economic development. Nigeria, as an independent state in 1966 to 1999 had experienced 2 assassinated heads of states, 10 coups, and 30 years of military rule. Ribadu (2007) confirms the emergence of "a curious interface between crime and technology with the emergence of mobile phones and the Internet in 1997. He noted that by 2002, the unsolicited "Nigerian mail" had become a global menace. The number of perpetuators involved in obtaining by false pretence rose astronomically during this period and is reported to have reached its peak between 1987 and 1991 (Oyakhiromen, 1999). The study also noted that the instruments of the fraud include 'format of authentic official documents'.

That the AFF originated in Nigeria is an undisputed fact. 54% of economic crimes are AFF crimes (Ribadu, 2007). The proliferation of AFF perpetuators is the indirect outcome of a mismanaged oil boom period from 1970, during which the generated revenue meant for effective economic development was squandered by successive corrupt governments, thus encouraging social decadence and high unemployment rates (Tive, 2006). It is in the light of such a history that many to hold the view that AFF is/was a Nigerian issue (Tanfa, 2006). Although much emphasis has been given to Nigeria as the origin of AFF perpetrators while foreigners are the victims, it is important to note that Nigerians are equally victims, thus giving the crime both a local and an international face (Tive, 2006).

Thus, the emergence and subsequent war by the Nigerian Economic and Financial Crimes Commission (EFCC) against AFF perpetuators was a welcome solution to a problem that was local and international in nature. Before the creation of EFCC in 2004, financial fraud offenders at best only refunded stolen funds and went unpunished. However, while the efforts of the EFCC have been laudable, there has equally been a proliferation of the AFF operations into several other countries (Ribadu, 2007). Tanfa (2006) observes that the increasing entry of Nigeria into the Internet sphere implies an increase in Internet fraud and AFF. Their operations have become "more 'refined' or 'sophisticated' as fraudsters are improving on their methodologies and modalities by taking advantage of VSAT facilities, broadband technology…" (Lamorde, 2007, p.54). With the foray unto the international scene, the 'Nigerian mail' took on the character of the 'West African mail', whose authors are perceived to be mostly from West Africa. Tanfa (2006) notes that the development of AFF into an international phenomena implies that the perpetuators are no longer Nigerians only but are also of "different nationalities from around the globe" (p. 41). The statistics as at 2006 also show AFF activity in almost every country, the ten countries with the highest number of resident AFF 419 perpetuators being the United States, Canada, China, Spain, United Kingdom, Ghana, Netherlands, South Africa, Germany, and Italy (AFF Unit, 2006). However, it is not certain that the international coverage is by virtue of geographical location only, rather than by citizenship of the perpetuators.

Research on AFF emails from a language perspective includes an article by Marilyn A. Dyrud (2005) that examines the language of persuasion in AFF emails. Martin Kich (2005) conducts a rhetorical analysis of AFF emails. Robert B. Fried, a forensic investigator, examines the tactics and methods of the perpetuators as well as a profile of the victims, and highlights guidelines provided by government agencies like the Securities and Exchange Commission (SEC) for detecting scam emails. They include, looking out for key phrases, researching the company, consulting a trusted third party, not submitting financial information online, and being cautious about responding to international online investment opportunities. Wendy L. Cukier, Nesselroth & Cody (2007) provide a study of AFF emails as a genre with characteristics that are unique to it. Blommaert & Omoniyi (2006) examine the phenomenon from a global viewpoint. They are able to establish the point that while the email scammers are highly competent in the technology of electronic communication, and in the genre of contemporary globalised communication, they are poor in linguistic competence as evidenced by a catalogue of language errors. In their view, what constitutes 'bad' language at one end of the globe is 'good' language elsewhere as a result of the globalization of the English language creating a variety of world Englishes. This view highlights the fact that the perpetrators undertake research while it is doubtful that their victims do the same, hence their continued successes. The studies highlight the patterns in the format, content, and language that characterize AFF emails as a genre in their own right.

Following the format of formal business letters, the mails have 5 basic components. The content of each component is one or a combination of the following (Blommaert & Omoniyi 2006, Kich 2005):

Opening Address

- Personal, direct address.

Introduction

- An apology and introduction.
- Explanation of how the addressee was selected to receive the letter

Body of the letter

- A micro-narrative about the origin of the money/financial problem
- An invitation to engage in a business transaction/to play a role in resolving the problem.
- What the addressee stands to gain
- Conditions or instructions to follow

Conclusion

- Requests for confidentiality.

Closing address

- Closing formula.

From the perspective of a narrative, Cukier, et al (2007) view the typical AFF email as having 1) *a setting* using actual events to invoke sympathy like civil war, plane crashes etc; 2) *a narrator* who is often the writer and invokes the authority of some distinguished personality like a bank manager, senior civil servant or wife of an important personality; 3) *form,* which is detailed and highly personal for the purpose of building trust; 4) *Myth* which builds on victims' dreams of sudden fortune; 5) *Plot*, which invokes the belief in rags to riches, grass to grace or the American dream story; 6) *Characters,* who are the victims and are led to believe that they are either superior or heroic; and 7) *Reward* which represents the bait. The contents of the body of a typical AFF email reflects various themes such as a) requests for charitable donations; b) funds transfer as a result of death in a coup, civil war, plane or car crash, current events, illness, assassination, fraud, from unclaimed dormant accounts, unclaimed inheritance; c) lottery winnings; and d) rescue a damsel in distress etc. The studies also note the use of various persuasion techniques to lure victims. Such techniques involve using language that appeals to emotional side of the victims to evoke pity, trust or greed (Dyrud 2005). The issue of actual identity of the authors of AFF emails, especially as it affects their authenticity, is addressed in the literature. Dyrud (2005) for example refers to AFF emails as *Nigerian 419 letters*, and proceeds to analyze them as such. In one analysis, she (2005, pp. 8-9) assumes the actual identity of the author of a mail she received to be Nigerian and not Liberian as the author claims. According to her, the author identifies himself as *Peterside Kanyon Doe,* a Liberian and the only son of the slain Liberian ruler, Samuel Kanyon Doe. Based on her research, she establishes the fact that the author has not been truthful about the circumstances of 'his father's death'. She found out that Doe took over power at the age of 28 following a rigged election and changed his birth date because according to her, "the *Nigerian* constitution requires presidents to be at least 32 years old" (Dyrud 2005, p. 9). Dyrud's analysis is inaccurate because the Nigerian constitution has no bearing on a Liberian president. Dyrud also lists *Petrol Ivoire* as one of the 'several legitimate- sounding Nigerian or South African companies' which the senders of AFF emails claim to represent. However, it is clear from the name that *Petrol Ivoire* is neither Nigerian nor South African.

The actual identities of AFF email authors remain a critical issue in determining the authenticity of the mails together with the genre, message, and structure. The premise is that the language ought to match the identity being claimed by the author. The implication that the varieties of English forms in ESL and other non-native English contexts have on the language of AFF emails, is that one should expect to find traces of indexical markers that would reveal the actual identities of authorship as a clue to confirm the authenticity of the mails. In other words, an author who claims to be an English native, and uses non- native English forms, should raise questions about the authenticity of the mail. Theoretically in an ESL context, the goal for most language learners is the standard form. Practically though, only few approximate SE. A greater majority achieve a near SE form which is a variety of non- standard English (Jowitt 1991, p. 47). This variety, called Popular English (Popular Nigerian English PNE in Nigeria) which developed as an interlanguage between SE and mother tongue forms, has now crystallized into a native variety within its context of use. It is characterized by indexical markers such as local coinages, indigenized SE words, loan words, indigenized idiomatic expressions etc. The expectation that the more exposed individuals are to education and thereby SE, the closer their approximation of SE remains a theoretical one as most speakers no longer seek to approximate the variety of native English speaking countries like Britain or America.

This view also finds support in the research on new Englishes which accords recognition to non-native English varieties that are spoken around the world. Higgins (2004) notes, that the new Englishes paradigm is relevant for the "reclassification of English speakers around the globe" (p. 617). New Englishes refer to varieties of English that are used outside native English contexts such as Britain, Australia, United States, and Canada. Research within the paradigm focuses on Institutionalized Varieties of English (IVEs) which refer to varieties spoken alongside other languages in countries formerly colonized by Britain of which Nigeria is one. These varieties are presented as legitimate rather than deviant versions of native English contexts. Within the concentric model spread of English put forward by Kachru (1998), the 'outer circle' is represented by these IVEs while the 'inner circle' is represented by countries where English is primarily spoken as the mother tongue or first language. The 'expanding circle' is represented by countries where English is spoken as a foreign language, for example China, Taiwan, and Korea. The concept of ownership is implied within the IVEs framework in that indigenization and subsequently, legitimization of a language are part of the process by which speakers appropriate the English language for their own use and make it *their own* [italics mine] (Higgins 2004, p. 620).

Examples of features that characterize varieties of English are bound to vary from country to country; as such cannot be generalized under a broad heading. Given the globalised nature of English, what is required at best, is country based descriptions. For example, an idiomatic expression in Nigerian English is not likely to be the same as that of Ghanaian English. By implication, the language of AFF emails can be analyzed for evidence of features that confirm claims of English native citizenship or otherwise. Where claims of African citizenship other than Nigeria are made, such mails can be analyzed for evidence of features that characterize varieties of non- English native forms or country- specific English forms like Nigerian English, Ghanaian English etc. In this view, the standard by which to determine the 'correctness' of English forms found in AFF emails should be of the variety that is being claimed by the author.

It is a well known fact that the language of AFF emails plays a key role in their detection mainly because the language often does not match the genre and medium. Cukier et al (2007, p. 2) note that authors of AFF emails seek to create an illusion of intimacy, sincerity, and personal contact. The study observed "obvious mishandling of standard locutions, syntax and idioms". Lamorde (2007, p. 54) notes that one of the features of AFF emails is the presence of grammatical errors and spelling mistakes on 'official' documents. Dyrud (2005, p. 3) observes the use of polite and Victorian language to invoke trust, and sincerity. With reference to language Kich (2005, p. 137) in his analysis highlights the 'odd mix of dictions and levels of fluency' in AFF emails. They include disagreement in number between subject and verb [this *matter*…that *need* trust…]; an unidiomatic one sentence paragraph with excessive coordination of elements, comma splice, omission of commas and an incorrect insertion of 'as' before a closing string of prepositional phrases [The owner of this account is a foreigner *and* no other person knows about this account or anything concerning it, the account has no other beneficiary *and* until his investigation through the national immigration department proved to me as well that he was single *as at his point of entry into the republic of South Africa*]. Kich's interpretation of the presence of these grammatical errors is that the sender is trying to establish a sense of authenticity with the recipient by posing as a foreigner who is a non-native English speaker:

The sender must sound foreign, like someone for whom English is a second-language… This suggestion of a foreigner struggling with the language not only lends credibility to the scenario that the sender is describing but also allows the recipient to feel that he may have several advantages over the sender, in particular in his ability to express himself clearly and, therefore, by an inverted sort of logic, in his ability to think clearly. Certainly, the sender is playing off deeply ingrained, if not conscious, then subconscious Western stereotypes of Africans as relatively unsophisticated and even downright stupid people.

However, this study suggests that the opposite is the typical response of a non- native speaker of English.

From an ESL perspective and based on this researcher's experience, speakers of SE forms are often perceived as having a higher status than speakers of non-standard varieties of English.

Blommaert & Omoniyi's (2006) is perhaps the most detailed of the studies under review. Their findings reveal that 'many of the authors of the messages struggle with basic literacy skills and have an incomplete control over standard varieties of English' (p.589) both of which are requirements for mastery of the AFF email genre. The following illustrate this: 'inconsistent punctuation, frequency of spelling errors, the unwarranted use of capitals, and cross-register transfers (e.g. the use of informal styles in formal genres, or vice versa)'. They also report unexpected turns-of-phrase, misnomers, remarkable stylistic development that reveal a lack of knowledge in codes of addresses. Their conclusion is that although many of these authors seem to know what their global victim expects that is, a globally 'recognizable 'serious' letter written by sincere serious business people, they are not competent nor are they aware of the difference between their non-native English variety, and the English native variety of most of their victims.

This present study takes off from this point to build on the findings of earlier language studies by comparing the common linguistic features of these mails with those of standard, authentic emails that belong to the same genre in terms of content, style, structure, and language variety features vis a viz identity claims of authorship, as a means to develop additional empirical forensic examination tools for detecting email scams.

METHODOLOGY AND DATA

The methodology to be adopted for this study follows closely forensic document examination by which questions about authenticity of documents are answered using a variety of scientific processes and methods. Such an approach will involve comparing the document in question or aspects of it like handwriting, style or use of language with that of an agreed standard. In crime investigation, examining the handwriting with which a document is written is the most common type of examination through which the examiner tries to determine authenticity of authorship (Wikipedia Encyclopedia). More recently, the field of digital forensics emerged. It deals with looking for evidence in digital data. The methodology involves acquisition and analysis of digital data, sieving out data that has evidential value, and presentation of results. Anti- spam filters are examples of automated forensic tools used to detect spam mails. However, they do not work perfectly because authentic mails still manage to slip into the spam box and vice versa. Studies in digital forensics underscore the need for new automated tools and strategies to handle the increase in the number and complexity of cases (Richard & Roussev, 2006). Since the data for this study are digital, the examination will focus on the language and style to determine the presence of common elements beyond the commonality of their purported purpose as business mails. A total of 50 email correspondences received by this researcher was examined and compared with standard business correspondence emails in terms of format, content and especially language. This researcher receives an average of 2 AFF emails per day and 60 per month. Not a single email in the corpus was free of linguistic errors. There are three occurrences of identical texts with different names for the authors as with Mr Ali Zongo and Mr. Isa Suleman (sample 20 and 42), Mrs. Bridggie William and Mrs. Julie Yahiri (sample 4 and 22) or a variation as with Mr. Wong Tung Shun Peter and Mr. T.S Wong (sample 28 and 49).

Since all the mails are business mails, they were classified into three business correspondence types: 1) request and reply correspondence, 2) confirmation correspondence, and 3) Persuasive correspondence. The mails shared features similar to those observed by Blommaert & Omoniyi (2006): (i) all of the messages are written in varieties of English other than SE; (ii) they are all sent using free Internet service providers. Some senders base their choice of medium on various reasons including: Email as the fastest medium; confidential; appropriate for contacting people one has never met before; and guarantee of instant access and response; (iii) except for a few, they mostly strive towards a formal, official style of writing with a greater number of mails in the persuasive category (33); (iv) with a sizeable number of 15 females out of 37 identified by gender, senders pose as elite professionals like accountants, directors, managers, chief auditor, wives of important or wealthy individuals who are in control of large sums of money and promise cash rewards ranging from 10% to 40% denominated in US dollar, Sterling or Euro; (v) they mostly seek foreigners as partners or investors etc; (vi) they also mostly claim foreign citizenship; (vii) the types of offers range from inheritance, fund transfer, donations to charitable purposes, lottery winnings to requests for confidential cash card information and email information; and lastly (viii) they reflect linguistic errors in varying combinations, mostly in grammar, style, punctuation and spelling.The main features of this study's corpus are summarized and tabulated as shown in Table 1.

A major trend that runs through the mails in the corpus is a concerted effort to convey credibility or authenticity. Several features highlighted earlier in (i) – (viii) are the senders' attempt to establish credibility with the recipient. In classifying the mails according to type of offer, senders seek to convey credibility by using formats similar to those found in standard mails. Blommaert & Omoniyi (2006) distinguish two main genres, namely 'administrative formal texts' for the lottery mails and 'narratives of experience and trust' for persuasive correspondence mails. In the corpus for this study, three types of correspondence and six general themes are identified.

Persuasive Correspondence

It has the largest number of mails (33) and their themes are unclaimed funds (12), inheritance (8), fund transfer (5), charitable donation (2), and others (6). As earlier mentioned (cf. 3), previous studies have noted the use of a general generic template that characterize this category of mails. Whether hard-copy or electronic, Guffey (2000,

Table 1. Summary of corpus

Sample	Sender's Name	Claimed Gender	Claimed location	Claimed citizenship	Type of Correspondence	Type of Offer	Reward	Type of error(s)
1	Harry Grossman, Yahoo Lottery Inc.	Male	United Kingdom	United Kingdom	Request and reply	Lottery	£ 500,000	Grammar, style
2	Mrs. Doris Martin Wong	Female	Not stated	Not stated	Persuasive	Inheritance/ charitable donation	10%	Grammar, spelling
3	Interswitch Nigeria	N/A	Nigeria	N/A	Confirmation	request ATM card information		Grammar
4	Mrs. Bridggie William	Female	Cote d'Ivoire	Not stated	Persuasive	Inheritance/ charitable donation	$4,800,000	Grammar, spelling
5	Dr. Bamu Joe	Male	Burkina Faso	Not stated	Persuasive	Unclaimed funds	32% of $25,000,000	Spelling,
6	Emily Olivier Jackman	Female	United Kingdom	United Kingdom	Persuasive	Inheritance/ donation	£5,800,000	Grammar,
7	Susan Lamine	Female	Ivory Coast	Sierra-Lone	Persuasive	Inheritance/ investment	15% of $5,700,000	Grammar, spelling
8	Yahoo Account service	N/A	Not stated	N/A	Confirmation	Request email information		Grammar, spelling
9	Matt Ridley	Male	United Kingdom	United Kingdom	Persuasive	Unclaimed funds	30% of $20,000,000	Grammar, punctuation
10	Interswitch Nigeria	N/A	Nigeria	N/A	Confirmation	request ATM card information		Grammar
11	InterSwitch Alert!	N/A	Nigeria	N/A	Confirmation	request ATM card information		Grammar, spelling
12	Frank Williams	Male	Abidjan, Ivory Coast	Sierra Leone	Persuasive	Inheritance/ investment	15% of $11,700,000	Grammar, spelling
13	Dr. Davids Annan	Male	Accra, Ghana	Not stated	Persuasive	Unclaimed funds	35% of $15,000,000	
14	YAHOO	N/A	N/A	N/A	Confirmation	Request email information		Grammar, spelling
15	Carin Coleman	Female	United Kingdom	United Kingdom	Request and reply	Lottery	1000000	
16	Juliet Ereme	Female	Not stated, email address Thailand	Not stated	Persuasive	Charitable donation	$5,000,000	Grammar, spelling
17	Mrs. Felicia Kone	Female	Not Stated	Ivory Coast	Persuasive	Inheritance/ investment	$10,500,000	Spelling
18	Monica Maria Velasquez Ruiz	Female	United Kingdom	Not stated	Request and reply	Lottery	£5,000,000	Grammar

continued on following page

Table 1. continued

Sample	Sender's Name	Claimed Gender	Claimed location	Claimed citizenship	Type of Correspondence	Type of Offer	Reward	Type of error(s)
19	Mr. Sani Hassan	Male	Burkina Faso	Not stated	Persuasive	Unclaimed funds	$8,500,000	Style, grammar
20	Mr. Ali Zongo	Male	Burkina Faso	Not stated	Persuasive	Unclaimed funds	30% of $25,000,000	Grammar, spelling
21	Mr. N. Martin	Male	United Kingdom	United Kingdom	Persuasive	Excess Maximum Return profit	50% of 36,759,000	Grammar
22	Mrs. Julie Yahiri (cf.#4)	Female	Abidjan, Cote d'Ivoire	Panama city, Florida.	Persuasive	Inheritance/ donation	$3,000,000	Grammar, spelling
23	InterSwitch Nigeria LTD	N/A	Nigeria	Not stated	Confirmation	request ATM card information	N/A	Grammar
24	INTER-SWITCH NIGERIA	N/A	Nigeria	Not stated	Confirmation	request ATM card information	N/A	Grammar, spelling
25	Interswitch Nigeria	N/A	Nigeria	Not stated	Confirmation	request ATM card information	N/A	Grammar, spelling
26	Mr. John Ade	Male	Nigeria	Nigeria	Persuasive	Fund transfer	30% of $35,000,000	Grammar
27	Mrs Gloria Pelaez	Female	Phillipines	Not stated	Persuasive		Not stated	Spelling
28	Mr. Wong Tung Shun Peter	Male	Hong Kong	Not stated	Persuasive	Unclaimed fund	$44,500,000	Style, spelling
29	Monaliza Jonbo	Female	Gabon	Not stated	Persuasive	Fund transfer	$6,500,000	Spelling, punctuation, grammar
30	FEDEX	N/A	Britain	Not stated	persuasive	Bank draft collection	$800,000	Grammar, punctuation
31	Norizah Abidin	Not certain	Britain	Not stated	Request and reply	Lottery	£5,000,000	Grammar
32	Microsoft Directorate	N/A	Britain	Not stated	Request and reply	Lottery	£450,000 and laptop computer	Style
33	Dr. Hazat Zongo	Not certain	Burkina Faso	Not stated	Persuasive	Unclaimed funds/fund transfer	$22,500,000	Grammar
34	PBL AWARD 2009	N/A	Britain	Not stated	Request and reply	Lottery	1000000	Spelling, format
35	Mrs. Caroline Jude	Female	Britain	Not stated	Request and reply	Lottery	£5,000,000	Grammar, format
36	Mrs Theresa Robert	Female	Europe	Not stated	Persuasive	Charitable donation	Not stated	Spelling, punctuation, grammar
37	Mr. Donald Lucas	Male	Not stated	Not stated	Persuasive	Unclaimed funds	25% of $36,000,000	Style

continued on following page

Table 1. continued

Sample	Sender's Name	Claimed Gender	Claimed location	Claimed citizenship	Type of Correspondence	Type of Offer	Reward	Type of error(s)
38	Mr. Hr Mahmood	Male	Non Nigerian	Not stated	Persuasive	Unclaimed funds	40% of $19,300,000	Grammar
39	Elena	Female	Russia	Not stated	Persuasive	Request for portable stove		Grammar
40	Mr. Ramond Salim	Male	Burkina Faso	Not stated	Persuasive	Fund transfer	$25,000,000	Punctuation, spelling
41	US Green Card Program- Year 2009	N/A	United States	Not stated	Reply and request	Lottery	U.S visa	Spelling, grammar, punctuation
42	Mr. Isa Suleman	Male	Burkina Faso	Not stated	Persuasion	Unclaimed funds	30% of $25,000,000	Grammar, spelling
43	Mr. John David	Male	UnitedArab Emirates	Not stated	Persuasion	Investment	$8,000,000	Grammar, spelling
44	Mrs. Rose Camara	Female	Sierra Leone	Abidjan, Cote d'Ivoire	Persuasion	Fund transfer/ investment	30% of $18,000,000	Grammar
45	James Kobo	Male	Nigeria	Not stated	Persuasion	Fund transfer	40% of $60,500,000	Grammar
46	Mr. Alihu Umar	Male	Burkina Faso	Not stated	Persuasion	Unclaimed funds/Fund transfer	45% of $7,600,000	Grammar
47	Horace Frazer	Male	United Kingdom	United Kingdom	Persuasion	Unclaimed funds/investment	30% of £18,000,000	Grammar
48	Barrister Teddy Williams	Male	UK	UK	Persuasion	Inheritance	$30,100,000	Grammar
49	Mr. T.S. Wong	Male	Hong Kong	Not stated	persuasion	Fund transfer	35% of $125,750,000	Style, spelling
50	Dr. Peter McWealth	Male	UK	UK	Request and reply	Unclaimed funds	Not stated	Spelling

p.222) notes that business memos generally have four parts 1) a subject line that summarizes the message, 2) an opening that contains the main point, 3) a body that explains and supports the main idea, and 4) an action closing. Apart from subject lines that are mostly ill formed, use of non formal address, and requests for confidentiality, the template compares favorably with that of a standard mail making a persuasive request. It suggests that senders are indeed aware of, and incorporate those features into the format and structure of their mails:

An example of an AFF persuasive email presented with its salient features highlighted:

Example 1: Sample 40
[subject line does not summarize main idea]
GOOD DAY FRIEND
From: "Mr. Ramond Salim' r25f20@eircom.net
To: …@yahoo.com
MR RAMOND SALIM
AUDITING AND ACCOUNTING UNIT,
BANK OF AFRICA.(BOA)

Table 2. A comparison of features of standard and AFF persuasive mails

Features of Standard Persuasive requests[1]	Features of AFF Persuasive email
Subject line summarizes main idea	Subject line does not summarize main idea
Formal opening address	Informal, personal address
Gain attention e.g. summarize the problem	An apology and introduction
Build Interest e.g. provide evidence to support your request and benefits for the receiver	A micro-narrative about the origin of the money
Reduce resistance e.g. demonstrate credibility by being knowledgeable, appeal to receiver's desire for goodwill etc	An invitation to engage in a business transaction, demonstrates credibility by being knowledgeable
No request for confidentiality required	Requests for confidentiality
Action closing: confidently ask for specific action, include end date and repeat key benefit	Closing formula: requests immediate response

[1] Source: Guffey, M.E. (2000, p.264)

OUAGADOUGOU -BURKINA FASO,

[informal address]

Dear Friend,

[apologetic introduction]

This message might meet you in utmost surprise, however,it's just my urgent need for foreign partner that made me to contact you for this transaction, I choose to reach you through it because it still remains the fastest medium of communication. However, this correspondence is private. I got your contact from the chambers of commerce here in my country ouagadougou,burkina faso.

[explanation about source of money]

I am a banker by profession from Burkina faso in west Africa and currently working in the Auditing and Accounting unit of the bank. I have the opportunity of transfering the left over funds ($25 million) of one of my bank clients late Mr.Andrea schranner who died along with his entire family on 31 july 2000 in a plane crash.

[attempt to convince recipient]

The fund for transfer is of clean origin.You can confirm the genuiness of the deceased death by clicking on this web site http://news.bbc.co.uk/1/hi/world/europe/859479.stm

[invitation to engage in a business transaction, benefits]

Hence,i am inviting you for a business deal where this money can be shared between us in the ratio of 50/40 while 10% will be mapped out for expenses after the fund has been transfer into your bank account. If you agree to my business proposal i require you to send me your personal informations such as your full name,your telephone number,your occupation,your full home address, and your scanned photograph,immediately i receive those datas,i will forward the details of the transfer and the application of claim to you which you will fill and send to the bank for the claim .have a great day.

Your Faithfully

Mr .Ramond Salim

[request for confidentiality]

NB, MAKE SURE YOU KEEP THIS TRANSACTION AS YOUR TOP SECRECT AND MAKE IT CONFIDENTIAL TILL WE RECEIVES THE FUND INTO THE ACCOUNT.

Request and reply correspondence

This category has the next largest number of mails (9) with lottery winnings as the major theme. As with persuasive correspondence, senders within the corpus of this

Figure 1. Example 2: sample 41

Congratulations From U.S Embassy!!

From: "united States Vusa Lottery' ,usadv05@msn.com>
To: undisclosed-recipients

From The Official CO-Ordinator.
UNITED STATES GRREN CARD PROGRAM - YEAR 2009.
United States Department of State, National Visa Center.
31 Rochester Ave, Portsmouth, NH 03801-2900.

Case Number :- 001WWACQ992009DC

Congratulations,you have been selected as one of the lucky winners of our U.S Visa through our internet email extracting and screening machine, your application was applied and processed by our internet email extracting and screening machine which randomly extracts 6.3 million Email addresses during our 30-days extraction period that ran from 12.00 AM on December 8th, 2008 until midnight, January 7th, 2009…

Visa claim application (step 1)
Your visa winning details falls within our Asia/pacific booklet representative office as indicated in the draw system and we have forwarded your winning details to our Asia/Pacific office for the processing of your visa acknowledgement Certificates, therefore, FOR YOUR VISA FORM, REQUIREMENTS AND FURTHER DETAILS, contact our Asia/pacific agent with the below contact details;

NAME:- MR. JAMES WILSON
PHONE:- +668 0288 5324
FAX:- +662 4330 902
MAILTO:- regionalcenter0@atlas.sk, regionalcenter0@walla.com
ALTERNATIVE EMAIL:- usadvd09@walla.com

Approximately 255 lucky selected winners had been notified through their selected winning email addresses including you today (Thur 08-01-2009) all selected lucky winners will need to act on their claims applications quickly before the expiration of the visa claim deadline which is on the (30th of January 2009)
Advanced question.
Visa Administrative Fee.
Single-$1195USD
Dual-$1,520USD (Family)

What is administrative fee?
The administrative fee pays for the accuracy preparation of your documents that will enable you to obtain your visa through the U.S Consular officer in your home country or country of your present residence. Green card experts charges a nominal fee to cover administrative and processing costs incurred in conjunction with the careful processing of every document. According to J.Stevenson Wilson, Author of Visa Lottery services Report, the total average fee charged by green card lottery services ($1195USD) for one person,there is no correlation between the fee charged and the quality of services provided and its benefits.

Please retain this letter and take it with you to your visa interview centre when directed.
Do not reply back to this notification email (busy)

Please read and follow all the enclosed instructions very carefully.

Sincerely yours,
Mrs. Christine Robert.
(Secretary General U.S Consulate Kentucky)

Figure 2. Example 3: sample 10

From: Interswitch Nigeria <koleck@rogers.com>
Sent: Wednesday, 18 March, 2009 0:28:45
Subject: Final Notice:Your ATM Card Suspension...

Interswitch

Dear Interswitch Card Holder,
Interswitch Have received your information from your bank and we need you to re-confirm your information, we have temporarily prevented access to your account.
You would have to apply for the upgrade on your ATM card by going to our website by clicking the link below:
https://webpay.interswitchng.com/webpay/Re-Confirm/
If your account information is not updated within 48 hours your ability to access your account will become restricted.
Note: Card Number (printed on card issued by bank) and Pin are numeric. Refer to your Debit and/or Cash Cards.
Thank you for choosing, Interswitch.
* Please do not respond to this email as your reply will not be received
* Affiliated Banks (GTBank, UBA, Skybank, BankPHB, Zenith, Access Bank, Intercontinental Bank PLC, Diamond Bank, Stanbic IBTC Bank, Africa Bank PLC, Oceanic Bank, Unity Bank, Wema Bank)

study illustrate their familiarity with the format and structure of lottery mails, and so structure the AFF versions in the same way, again to achieve credibility. The example below is a US visa lottery program. Note the conspicuous use of the symbol of the United States government's logo:

The language in this example will be discussed later. Further investigation revealed that although this particular competition is not mentioned on the US visa lottery fraud site, the results of 2009 lottery are available while the 2010 lottery edition had already been completed at the time this mail was posted. Also note the unusual use of a free internet service provider 'msn' instead of a 'state.gov' address.

Confirmation Correspondence

This category has the least number of mails (8) with requests to confirm vital cash card or email information as the main themes. This correspondence type is not mentioned in any of the previous studies, perhaps because it is targeted at Nigerians where the service providers operate and not at foreigners like the previous two correspondence types. After eliminating several repetitions, there were still 6 variations of the same message supposedly from Interswitch, an e-payment solutions service provider, and from Yahoo, an Internet service provider. Using a relatively recent strategy of called *phishing*, email scammers masquerade as representatives of these service providers and then urge customers to provide confidential and sensitive information such as identity numbers, card numbers, passwords, log in numbers or PIN numbers. The information is used to gain access to accounts like email accounts. Scammers masquerading as the legitimate owners of such accounts send mails to those in the contact list requesting money. Indeed, one of the victims narrated how his friends and professional colleagues purportedly received a mail from him asking them to send money to him because he was stranded in Malaysia. Another colleague who received a similar mail informing him of a likely suspension of the use of his automated cards saw through the scam by querying the sender's email address was suspect 'koleck@rogers.com'. Example 3 is a sample of the scam mail; note that the symbol of the company is boldly displayed to lend credibility to the mail:

These and other examples confirm Blommaert & Omoniyi's findings (2006) which highlight the high level of competence displayed by senders' ability to navigate their way through the virtual world, and thus achieve credibility with the recipients. Their findings also note senders' high levels of cultural competence as they are able to display knowledge that match the role or citizenship they seek to project.

THE LANGUAGE OF AFF EMAILS

Senders attempt to establish credibility through the use of language that should match/fit the projected profile of the sender. It has been observed in this study as it has in earlier studies that the language in AFF emails illustrates senders' low level of linguistic competence, thus creating a mismatch between projected profiles and language use. This study investigates the nature of the linguistic features through analysis of the data at two levels: first, at the level of appropriateness for email correspondences, and second, evidence of ESL features.

Baron (1998) provides insight into the linguistic features of emails in general. She views email as a moving linguistic system caused by changing technology, changing profile of users, and a maturing process in its use. Thus, it is difficult to arrive at a 'unified grammar of email'. For example, there is no clear consensus on what is appropriate for salutations and closings. The early years of the maturation process were characterized by ignoring stylistic and grammatical errors, proofreading or editing. Today however, in addition to several guidebooks on email style and netiquette, the linguistic features of written business correspondences mostly still apply to the email versions. A high level of competence is required to write business mails (emails inclusive) because a well written mail is more likely to be considered as legitimate, authentic or credible, thus is more likely to achieve its goal and project a positive image for the organization or sender (Guffey, 2000). Standard business correspondence emails are characterized by the following:

- Relevant and helpful subject lines
- Appropriate salutations and closings
- Organized and coherent content
- Correctness in spelling, punctuation, and grammar
- Clear and precise language
- Upper- and lowercase characters-never all uppercase or all lowercase characters.

Source: Guffey (2000)

DATA ANALYSIS

Using the above listed features of a standard business mail as a guide, and standard forms of English, we shall examine the linguistic errors under the following headings: Subject lines, Address terms, grammar spelling, punctuation, and style.

Subject Lines

A general guideline for writing subject lines is to ensure that it is relevant to the content of the mail, and is helpful in that recipient has a good idea of what the mail is about. Generic subject lines often cause mails to be deleted or automatically sent to the spam box. As noted earlier, anti-spam guards are programmed to delete mails with such generic subject lines. Most of the mails in this study's corpus used generic subject lines. Here are some examples:

Example 3. Samples of Subject lines

From Mrs Bridggie William (sample 4)
read and reply (sample 5)
Business (sample 9)
*InterSwitch Alert !! ATM Card Is About To Expier (sample 11)
*URGENT REPLAY (sample 33)Note the

spelling errors in the last two examples, **expier* instead of *expire* and, **replay* instead of *reply.*

Address Terms

There is no reference to the recipient's name in the opening and closing salutations used by senders thus suggesting that the recipient is unknown to the sender. Here are some examples:

Example 5. Samples of Address terms

Opening: Greeting (sample 4)
Closing: God bless you as you listening to the voice of reasoning
Opening: Dearest One, (sample 7)
Closing: My sincer regards to you
Opening: Dear Beloved One In The Lord (sample 16)
Closing: Yours Sister In Christ,
Opening: Dear (sample 21)
Closing: Sincerely,

Senders appear to recognize address terms as one of the features of standard business mails but they do not seem to be aware of the appropriateness that guides their use. For them, their desire to establish personal relationships with the recipients is more important than the markedness they create by using address forms that do not reflect business relationships.

Grammar

Grammatical and sentence construction errors account for the highest number of errors in the corpus of this study- 32 mails. The errors include run- on sentence, incorrect punctuation, use of incorrect tense, preposition, missing conjunction, sentence fragmentation, and subject-verb agreement.

Example 6: Grammatical errors

- *Run-on sentences*

Consequently, my proposal is that I will like you to stand in as the owner of the money I deposited it in a security company (sample 9)

From my investigations and confirmation, I discovered that the owner of the account who is a foreigner died without any traceable next of kin hence the dormant nature of the account (sample 46)

- *Incorrect punctuation*

I am 68 years old and was diagnosed for cancer about 4 years ago, immediately after the death of my husband I have been touched by the lord to donate from what I have inherited from my late husband to charity through you for the good work of humanity. (sample 2)

We do not want this to happen as it will not augur to our best interest, having worked all our lives in the banking sector, that is why I contacted you for us to do the deal together with absolute confidence, so that you will be portrayed as the bonafide beneficiary and an immediate next of kin to the deceased (sample 20)

- *Use of incorrect tense form*

Consequently, my proposal is that I will like you to stand in as the owner of the money… (sample 9)

- *Use of incorrect preposition*

Consequently, my proposal is that I will like you to stand in as the owner of the money I deposited it in a security company in two trunk boxes… (sample 9)

- *Missing conjunction 'and' or punctuation*

I am Mr. Matt Ridley, Former Chairman Northern Rock I have a confidential business Proposition for you. (sample 9)

- *Sentence Fragmentation*

Because of the problem and I am still under investigation. (sample 9)

- *Subject –verb agreement*

And he also confided in me the last time we was at my office that no one except me knew of his deposit in my bank.(sample 28)

- *Verb- tense agreement*

We are sending you this E-mail because your package is been registered on a Special Order. (sample 30)

These examples illustrate the grammatical errors found in the corpus. They include run-on sentences in samples 9 and 46; incorrect punctuation in the use of a comma instead of a full stop in samples 2 and 20; incorrect use of the tense form 'will' instead of 'would' in sample 9; incorrect use of the preposition 'in' instead of 'with'; a missing conjunction 'and' or punctuation '.'; a fragmented sentence; subject-verb disagreement between a second person plural subject 'we' and the verb 'was' instead of 'were' in sample 28; and a verb-tense disagreement between the 'is' and 'been' resulting in a mixing of passive and active voice in sample 30.

Similar errors were found in previous studies of senders who claimed to be educated English natives. For example, Matt Ridley, the author of sample 9 claims to be a British citizen and former chairman of a company. Mr. Ridley's claim of British citizenship and high professional status does not match the type of linguistic features in his email. He commits basic errors such as run-on sentences, use of incorrect tense forms, prepositions, missing conjunctions, and sentence fragmentation. The author of sample 46, Mr. Horace Frazer, claims to be a British citizen and an accountant. Yet his mail contains a run-on sentence that is 5 lines long, omits full stops, and uses commas in place of full stops. Even more surprising is sample 30 purportedly from FEDEX, Britain (even though the funds are quoted in US dollars). As a corporate organization, it is unlikely that it would allow errors like verb- tense disagreement as shown above. It is important to note that Jowitt (1991) observed similar errors in PNE which is an ESL variety.

Spelling

A little less than 50% of the corpus contained spelling errors. In their study, Blommaert & Omoniyi (2006) note that "many of them fail to accomplish the most basic task: the production of a degree of orthographic correctness sensed to iconicize the position from where they speak- a writing that matches their claimed identity as members of a highly skilled professional elite class" (p. 600).

Furthermore, by displaying poor spelling skills, these senders fail to achieve overall credibility. The highest number of spelling errors is occurrences of incorrect use of upper and lower case letters. Some senders showed no awareness of the principles that guide their use. Next is incorrect spelling of words. Here are some examples:

Example 7: Spelling Errors

- *Misuse of Upper and lower case*

  I am Mr. Matt Ridley, Former Chairman Northern Rock I have a confidential business Proposition for you (sample 9)
  Made a (Fixed) Deposit, valued at US$20,000,000.00, (twenty Million, Dollars) in my Bank (sample 9)
  i require you to send me… i receive those datas,i will forward the details… .have a great day. (sample 40)
  We are sending you this E-mail…(sample 30)
  I KNOW THAT THIS MESSAGE WILL COME TO YOU AS A SURPRISE. I AM THE BILL AND

EXCHANGE MANAGER IN GRANTEE TRUST BANK (G.T.B), ACCRA GHANA. (sample 19)
CO-Ordinator (sample 40)

- *Incorrect spelling*

Expier (sample 11)
WE APOLOGIES (sample 20)
Restrait
bussiness
impost
REPLAY (sample 33)
GRREN (sample 40)

- • *Pluralisation of uncountable nouns*

Informations (sample 16)
Staffs (sample 20)

Scammers are like gamblers because they rely on the ignorance of their victims. For emails whose main target is foreigners, the assumption is that foreigners are not likely to be familiar with details like names of banks or with ESL features. For example, in sample 19 the name of a well known bank is incorrectly spelled, **Grantee* should be *Guaranty* by Mr. Donald Lucas who claims to be a senior official with the bank. A bank official's inability to spell the bank's name correctly raises questions about the authenticity of his claims and identity. There were several occurrences of misuse of the upper case, a phenomenon referred to in digital communication as 'shouting'. The data also showed several spelling errors. While it could be argued that some of the errors are typographical like the omission or addition of a letter, repeated errors within the same text are unlikely to be typographical (e.g. **bussiness* occurs twice in the same mail). Jowitt (1991) notes similar errors for the non- standard ESL variety, PNE. Incorrect pronunciation of sounds and words that sound alike often result in false analogy. The results include words that are wrongly spelled based on pronunciation and substituting with the wrong sound. Pluralization of uncountable nouns is a common feature of non- standard varieties of English including PNE (Jowitt 1991, 113). In samples 16 and 20 **informations* is repeated twice in the mail thus indicating that it is a genuine morphological error while **staffs* occurs once.

Punctuation

There are several occurrences of punctuation errors in the corpus. They range from missing commas and full stops to wrong use of full stops. Here are some examples:

Example 8: Punctuation errors

- *Incorrect use of aprostrophe*

visa's (sample 41)

- *Wrong use of comma*

…for the processing of your visa acknowledgement Certificates, therefore,… (sample 41)

- *Incorrect use of full stop*

…but he is in Nigeria for a three (3) month Surveying Project. for he is working with a consulting firm (sample 30)

- *Missing semi-colon or full stop*

…please reply immediately via my email address upon your response, I shall then provide… (sample 9)

Similar errors featured in an earlier study of errors in the writing of ESL learners (Ofulue, ms). Four types of punctuation errors were identified by the study. They were missing comma, wrong use of the comma, wrong use of the semi-colon, and wrong use of the full stop. Although it is not common in professional writing, incorrect use of the apostrophe is a common error even in native speaker use.

Style

One of the indexical markers of varieties of global languages like English is the presence of indigenized English expressions which distinguishes each variety. These expressions are usually understood only by speakers who belong to the same speech community. They are usually classified as non- standard forms of English, colloquial or informal language. The examples below illustrate these expressions:

Example 9: Style

got no reply (sample 9)
so you can be able (sample 9)
our both families (sample 19)
Confirm this receipt (sample 35)
we don't known each other in the past,… (sample 36)
… my personal search …which disclosed you a little (sample 36)

These expressions are clearly not British or American expressions e.g. **got no reply* in SE would be *received no response.* The examples in sample 9 and 19 **can be* able, **of our both families* are cases of redundant copying where SE uses either *can* or *be able, our* or *both* but not both. They are characteristic of characteristic of PNE variety (Jowitt, 1991).

RECOMMENDATION AND CONCLUSION

Despite the relatively high level of information and awareness that has been raised about AFF, the number of victims is reported to be on the increase. The findings of this study should be useful for the development of more effective anti-spam guards; and for individuals or investigators who do not only want to be equipped to detect digital scam mails but would also want to investigate the source. It also fills the gap in research on the nature of the linguistic features that characterize AFF emails from an ESL perspective.

AFF email scams affect non-native and native English speakers alike. However, it is difficult to understand how anyone, native English speakers especially, would fall for these scams, particularly since they are able to detect more easily non-native forms, that often characterize AFF emails. The linguistic features examined in this study will be useful in investigating the authenticity of claims made in email correspondences.

The findings of this study have also provided the basis to view linguistic features of varieties as indexical markers of actual identities. Blommaert & Omoniyi (2006) surmise that

"To the extent that the authors invoke identities of professional elite membership and exhaust themselves in attempts towards convincing their addressees that they belong to the same stratum of the world, their orthographic, punctuation and linguistic difficulties give them away as someone else- as poseurs" (p. 602).

Although the data does not suggest that all the common features found in the corpus are characteristic of ESL forms, the similarities between them and in some cases with the PNE variety is remarkable. Future studies can develop an empirical framework with which to conduct similar investigations in other ESL contexts.

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KEY TERMS AND DEFINITIONS

Advance Fee Fraud: A confidence trick targeted at people to make them advance a sum of money with the hope of getting a significantly higher sum.

Digital Forensics: A branch of Forensic science that refers to the application of a broad spectrum of scientific investigation to answer questions of interest to a legal system. Also known as computer forensics, it seeks to confirm the state of digital artifact such as an electronic document (e.g. an email). Of particular significance is the notion of authentication that is, establishing or confirming the veracity of claims made by or about a subject.

ESL (English as a Second Language): Generally refers to the English used by speakers of English in the former colonies of Britain. The speakers have their first language, which is their mother tongue and English is acquired as their second language.

Forensic Analysis: A careful analysis of the evidence in the simulation log files to provide insights on what happened.

APPENDIX

Punctuation Errors

Incorrect Use of Apostrophe

The aims and objectives of the program is to give free visa's to citizens of developing countries around the world who wishes to travel to U.S and start a new life and work. The green card Lottery is a matter of huge benefits for those who want to try themselves abroad. (sample 41)

Wrong Use of Comma

Your visa winning details falls within our Asia/pacific booklet representative office as indicated in the draw system and we have forwarded your winning details to our Asia/Pacific office for the processing of your visa acknowledgement Certificates, therefore, FOR YOUR VISA FORM, REQUIREMENTS AND FURTHER DETAILS, contact our Asia/pacific agent with the below contact details; (sample 41)

Wrong Use of Full Stop

The package is registered with us for mailing by your colleague, and your colleague explained that he is from the United States but he is in Nigeria for a three (3) month Surveying Project. for he is working with a consulting firm in Nigeria West Africa.(sample 30)

Missing Full Stop

Consequently, my proposal is that I will like you to stand in as the owner of the money I deposited it in a security company in two trunk boxes though the security company does not know the contents of the boxes as I tagged them to be photographic materials for export. (sample 9)

Style

If you are interested, please reply immediately via my email address upon your response, I shall then provide you with more details and relevant documents that will help you understand the transaction. (sample 9)

Upon maturity, I sent a routine notification to his forwarding address but got no reply. After a month, we sent a reminder and finally we discovered from his employers, that Colin Morley died from 7 July 2005 London bombings. (sample 9)

I want to present you as the owner of the boxes in the security company so you can be able to claim them with the help of my attorney. (sample 9)

I hope that you will not expose or betray this trust and confident that i am about to open up to you for the mutual benefit of our both families (sample 19)

From: “fbolm@bellnet.ca” <fbolm@bellnet.ca>
To:webmail@winner.org
Confirm this receipt by contacting the due process unit officer Mrs.Pamela White for the sum of £5,000,000 GBP E-mail: (contactdept001@yahoo.com.hk)Fill the details: Full
Name,Address,Tel,Occupation:
Regards
Mrs.Caroline Jude (sample 35)

I pray that my decision to contact you will be given genuine approval considering the facts that we don’t known each other in the past,As a matter of fact I was pleased with the bit of information I gathered about you from my personal search through the internet, which disclosed you a little. (sample36)

Chapter 20
Online Orthographies

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ABSTRACT

The representation in online environments of non-Roman-based script languages has proved problematic. During the initial years of Computer-mediated Communication, the American Standard Code for Information Interchange character set only supported Roman-alphabetic languages. The solution for speakers of languages written in non-Roman scripts was to employ unconventional writing systems, in an effort to represent their native language in online discourse. The first aim of this chapter is to present the different ways that internet users choose to transliterate or even transcribe their native languages online, using Roman characters. With technological development, and consequently the availability of various writing scripts online, internet users now have the option to either use Roman characters or their native script. If the latter is chosen, internet users still seem to deviate from conventional ways of writing, in this case, however, with regards to spelling. The second aim, therefore, is to bring into light recent developments, by looking at the ways that internet users manipulate orthography, to achieve their communicative purposes.

INTRODUCTION

Ever since the internet became available to the public it has dominated and changed people's lives in several different ways, by offering convenience, quick exchange of information and contribution to knowledge. With the phenomenal growth of the internet and the emergence of Computer-mediated Communication (henceforth CMC), one area that has attracted the interest of many scholars is how this new technology has influenced the way that people use language. According to Crystal (2001), "the electronic medium, to begin with, presents us with a channel which facilitates and constrains our

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Figure 1. The ASCII character set. Adapted from:http://www.cs.tut.fi/~jkorpela/chars.html. Retrieved 11 March 2009

! " # $ % & ' ( ) * + , - . /
0 1 2 3 4 5 6 7 8 9 : ; < = > ?
@ A B C D E F G H I J K L M N O
P Q R S T U V W X Y Z [\ ] ^ _
` a b c d e f g h i j k l m n o
p q r s t u v w x y z { | } ~

ability to communicate in ways that are fundamentally different from those found in other semiotic situations" (p. 5).

The internet was developed in the 1960s' in North America, by the American Defense Department, with the aim to connect organizations and give researchers access to remote computers (Pargman, 1998). At this early stage, due to the fact that this medium of communication was developed in an English-speaking country, the English language was almost exclusively used online. The rapid increase of the internet has promoted its availability to the public and, consequently, its globalization. Danet and Herring (2007) maintain that, according to a recent compilation, conducted by Computer Industry Almanac, the internet was used in 2004 by around one billion individuals around the world. Although still the dominant language, English ceased to be the only language evident online, and nowadays the internet has shifted from being a monolingual to being a multilingual network.

Something that could not have been foreseen by the early planners of the internet was that, due to the increasing popularity and the spread of this medium around the world, languages other than English would begin to emerge online. One limitation for non-English speakers, and particularly for speakers of non-Roman-based script languages, was that they were not able to adequately represent their native language online. The American Standard Code for Information Interchange (ASCII) character set, which was originally established in the 1960s, was based on the Roman alphabet and only supported a limited number of characters (Figure 1).

The keyboard of a computer was firstly designed to be used by speakers of English and difficulties for non-English speakers were identified in varying degrees. Pargman (1998) explains that speakers of Swedish, whose writing system contains the letters <å>, <ä> and <ö>, were initially not able to represent these characters in online environments. Warschauer and Donaghy (1997) observed that speakers of Hawaiian had similar difficulties, as their writing system includes a number of diacritic marks, the use of which makes a difference in the meaning of a given lexis (e.g. *paÿu* 'soot', *paÿü* 'moist', and *päÿü* 'skirt'). Portuguese writers also had difficulties in rendering diacritics and, according to Jensen (1995), internet users either abandoned them or they replaced them with other diacritic marks that existed in the original ASCII character set. The difficulties were of a greater scale for speakers of languages that are not written in Roman characters, for example Arabic, Greek, East Asian languages, and so on.

In an effort to find solutions and facilitate the use of specific languages online, technological advance has led to developments. An initial improvement was the extended version of the original ASCII character set. Known as the ISO/IEC 8859-1 or Latin-1, this encoding system added a number of characters and letters with diacritics and had a total of 191 characters, to support manly languages written in the Roman script (Korpela, 2001). Although this character set offered solutions for Roman-based languages, non-Roman-based script languages were still disadvantaged. The emergence of the Unicode Standard was a breakthrough. According to Anderson (2004), "the development of the Unicode Standard represents a monumental achievement and allows increasing electronic communication amongst a wide array of groups" (p. 3). Version 5.0 of the Unicode Standard has introduced 1,369 characters (The Unicode Consortium, 2006). These additions include new characters for Cyrillic, Greek, Hebrew, Kannada, Latin, phonetic extensions, symbols, and five new scripts: Balinese, N'Ko, Phags-pa, Phoenician, and Sumero-Akkadian Cuneiform. A more recent version, namely the Unicode 5.1.0, contains over 100,000 characters and adds 1,624 newly encoded ones (The Unicode Consortium, 2008). These additions provide support for languages in Africa, India, Indonesia, Myanmar, and Vietnam, with the addition of the Cham, Lepcha, Ol Chiki, Rejang, Saurashtra, Sundanese, and Vai scripts. The Unicode Standard is an ongoing project, with the aim to provide in the future more solutions to other languages around the world.

Before the emergence of the Unicode Standard, Romanization was proved to be an effective solution for the representation in online discourse of languages with non-Roman writing systems. Once the Unicode Standard has become available, internet users had the opportunity to write in their own native script. Two interesting practices that emerged will be discussed in this chapter:

- The principles that underlie the choice of Roman characters online
- In cases where the native writing system is preferred, internet users might use 'unorthodox spellings' in an effort to represent in writing features of their spoken language

SOCIOLINGUISTICS OF ORTHOGRAPHY

It has been suggested in the past that orthography is not usually subject to systematic change. Milroy and Milroy (1991), for instance, claim that "spelling is the most uniform level of language use, and contrasts in this respect with the variability of its counterpart in speech – pronunciation" (p. 67). Jaffe and Walton (2000) maintain that "…orthography is one of the key sites where the very notion of 'standard language' is policed" (p. 562). According to Stubbs (1992), however, the statement by Milroy and Milroy, mentioned above, might not always be true, as sometimes variation in orthography might go unnoticed. He states: "There is much more variation in the system than is generally realized." (p. 221).

According to Sebba (2007a), "…where there is variation, there is in practice always social meaning" (p. 32). Orthography is important in the establishment and demarcation of identity and the link between orthography and identity can be found at different levels of social organization. Orthographic practices may differ between nations-states (e.g. American vs. British spellings, as in *color* vs. *colour, analyze* vs. *analyse*, *center* vs. *centre*) or different cultural groups, for instance when British-born Caribbeans may sometimes use non-standard spellings, to represent in writing British Creole pronunciation (Sebba, 2000). These examples clearly demonstrate that particular conventions are used in order to symbolize *one's* language or variety as opposed to the *other*. This indicates that people are associated with particular spellings. Sebba (2007a) proposes the term "orthographic practices", and defines them as practices that "represent reasonably coherent and consistent choices made by writers and printers in respect of how to write words" (p. 26). Sebba (2007a) also argues that orthographic practices are usually made in particular social, historical and cultural contexts.

There are several reasons why an individual, or a group of people, might choose to use non-standard orthographies. It has been suggested that writing in a non-standard variety is an effort to manipulate orthography in order to capture the richness of the vernacular (Berthele, 2000). In other words, writers can use non-standard orthographies to transfer, not only spoken linguistic features, but also immediacy and authenticity into writing. Youth language is another important aspect related to non-standard orthographies as, according to Chambers (1995), linguistic innovation and change is particularly evident during adolescence. Adolescents tend to use creative, expressive and oppositional language in an effort to diverge from adult forms. Youth identity was investigated by Androutsopoulos (2000a) who explored non-standard spellings in media texts, by looking at German punk fanzines ('fan' + '(maga) zines'). What is important in this case is the fact that authors in fanzines (and consequently their readers) relate the non-standard writing with non-mainstream identity. Graffiti is another example of spelling rebellion. According to Jørgensen (2008): "Graffiti often involves the use of forms and structures which are non-standard, and the way some non-standard forms are used indicates that they are intended as non-standard forms, or even as oppositional forms" (p.170). Adolescents deliberately choose the non-standard form as an attempt to go against the standard, the norm. Similar findings of 'unorthodox spellings' in English graffiti are reported by Sebba (2003).

Another domain that seems to allow freedom in writing, enhancing therefore unconventional spellings, is CMC. It has been suggested that CMC (and especially its synchronous modes, like chatgroups and virtual worlds) shares both spoken and written linguistic features. This new form of discourse is neither totally speech-like, because the interlocutors cannot see or hear each other, nor totally written, as although it is typed, it lacks planning and editing strategies (Collot & Belmore, 1996). Different names have been attributed to this new way of writing, such as "*talking in writing"* (Spitzer, 1986, p. 19; quoted in Collot & Belmore, 1996, p. 14), *"interactive written discourse"* (Werry, 1996, p. 48) and "*net-speak"* (Crystal, 2001). With the development and globalization of the internet, and as this medium of communication is becoming a multilingual environment, non-standard spellings are frequently used by internet users in an effort to represent in writing, not only their native official languages, but also dialects and non-standard varieties. According to Warschauer *et al* (2007): "The Internet also fosters written communication in dialects and languages that previously were used principally for oral communication" (p. 304).

In the sections that follow, I provide examples from research that investigate the orthographic practices of internet users from around the world. In particular, I present investigations on several languages including Arabic, Greek, Chinese, Japanese, Cyrillic-based languages, African and Creole and Pidgin languages. Then the question is raised on whether languages such as English have scope for variation. By studying online orthographic practices, it is demonstrated that orthography is a socially embedded activity.

NON-ROMAN-BASED LANGUAGES ONLINE

As mentioned in the introduction of this chapter, speakers of languages with non-Roman writing systems, such as Arabic, Greek, languages in East Asia and languages that use the Cyrillic alphabet, have been particularly disadvantaged when it came to the representation of their native languages in online discourse. Romanization was proved to be a practical solution to this problem. Speakers of such languages employed non-native writing systems (namely by using the Roman alphabet) instead of their conventional method of writing, to represent their language online. Paolillo (1996) notes that a Romanized version of Punjab, a language written in Indic or Arabic script, was widely used in the *soc.culture.punjab* forum [1]. The following are detailed accounts, investigating the use of different languages and regional varieties in online environments.

Arabic

The case of Arabic is rather interesting as the sociolinguistic situation in many Arab-speaking countries can be described as diglossic (based on Ferguson's 1959 classical description of diglossia). In counties like Egypt, Morocco and United Arab Emirates, Standard Arabic, the High (H) variety, generally enjoys more prestige, serves formal functions (i.e. being the medium of education and used in the media and administration) and it is used for all written purposes. On the other hand, local "colloquial" Arabic, the Low (L) variety, is used in oral, informal communication, it does not have a standard official orthography and it is rarely used in writing (with the exception of folk literature, advertising local products and cartoons in newspapers and magazines).

In an investigation on language choice within the Egyptian online context, Warschauer *et al* (2007) found that the regional colloquial variety, namely Egyptian Arabic, is used in CMC along with Standard Arabic and English. The researchers note that although the preferred code was English, a Romanized version of Egyptian Arabic has been gaining ground, especially in informal modes of online communication. The results also revealed that Standard Arabic was the least preferred code.

The sociolinguistic situation in Morocco is characterized by multiple diglossia between several languages (Standard Arabic vs. Moroccan Arabic, Moroccan Arabic vs. Berber, and French vs. Standard Arabic). Berjaoui (2001) investigates the online practices of Moroccan internet users by paying specific focus on how the unwritten, local Moroccan Arabic variety is represented in synchronous CMC. By collecting approximately 3,500 pages of online interactions from Mirc (Microsoft Internet Relay Chat) Berjaoui explores the Romanization of Moroccan Arabic. He looked at the different methods adopted by chatters, in an effort to represent in writing their spoken non-standard native language (for a full list of emerging conventions see Berjaoui, 2001, pp. 453-463). Some examples include the following:

- A single Roman character is used to represent simple Moroccan Arabic consonants and also emphatic as well as emphasized consonants, (e.g. <p> for the sound /p/ as in *pyasa* 'one piece', <s> for the emphatic /ṣ/ as in ṣ*u*ṃ 'fast')
- Some sounds have two representations (e.g. the sound /ž/ is represented by <j> or <z>)
- Geminated consonants, a typical feature of Moroccan Arabic, are represented with only one Roman character (e.g. <sed> for *sedd* 'he closed')

Gulf Arabic is relatively different from Standard Arabic and it is characterized by strong Bedouin features (Palfreyman & Al Khalil, 2007). With regards to consonants, in Gulf Arabic the sounds /g/ or /ʤ/ are used instead of the standard /q/, and the sound /k/ is, in some cases, realized as /ʧ/. Similarly to Moroccan Arabic, Gulf Arabic does not have a standard official orthography. Palfreyman and Al Khalil (2007) explore the ways that young Arab university students in the United Arab Emirates use Roman characters, to represent their native language in Instant Messaging (IM). The following is an example of an online interaction between two students (see Table 1):

As it can be seen from the example above, participant D initiates the discussion using the Arabic script written from right to left, but participant F quickly 'switches' to the Roman characters, written from left to right[2]. When it comes to the representation of Gulf Arabic online, similarly to Moroccan internet users, speakers represent

Table 1.

D: السلام عليكم ورحمة الله وبركاته	*D: Hello there.*
D: مرحبا حمده،، شحالج؟	*D: Hi Hamda, how are you doing?*
F: w 3laikom essalaaam asoomah ^__^	*F: Hi there Asooma ^__^*
F: b'7air allah eysallemch .. sh7aalech enty??	*F: Fine, God bless you. How about you?*
[pause]	[pause]
D: el7emdellah b'7eer w ne3meh	*D: Fine, great thanks.*
D: sorry kent adawwer scripts 7ag project eljava script w rasi dayer fee elcodes	*D: Sorry, I was looking for scripts for the java script project and my head is swarming with code.*
F: lol	*F: lol*

(Palfreyman & Al Khalil, 2007, p. 44)

some sounds of their language by single Roman characters "based on the usual pronunciation of these letters in English" (p. 53). Sounds that do not exist in English are represented with numerals, the choice of which is based on their visual resemblance with the original Arabic symbol (e.g. <3> for < ع > for the sound /ʕ/, <'7> for < خ > for the sound /x/, or <7> for < ح > for the sound /ħ/). Typical features of the local vernacular, namely the post-alveolar affricate sound /ʧ/ and the use /g/ or /ʤ/ instead /q/, are widely used online. With regards to /ʧ/, this sound does not occur in Standard Arabic and therefore there is no standard Arabic letter to represent it. English conventions, however, and in particular the letters <ch>, provide "a ready-made solution" (p. 55) for the online representation of this sound.

Greek

Androutsopoulos (1998, 2000b, 2001) and Tseliga (2007), explored the representation of the Greek alphabet by Roman characters in online environments, a phenomenon widely known as 'Greeklish'. By analyzing a number of samples that contain Greeklish, Androutsopoulos makes a distinction between a phonetic representation (i.e. the use of Roman characters to transcribe Greek sounds or phonemes, e.g. <i> for the Greek letter <η>, which is pronounced /i/) and an orthographic representation (i.e. the transliteration of Greek characters by using visually equivalent Roman characters or numbers, e.g. <w> for <ω>, pronounced /o/, and <8> for <θ>, pronounced /θ/). It was also found that Greek internet users are not always consistent in the representation system they follow; in other words they sometimes write a Greek character phonetically and in other cases orthographically. Romanization of Greek was also documented by Tseliga (2007), who investigated the linguistic and sociocultural implications of Greeklish, by analyzing data from Greek and Greeklish e-mails. Tseliga also looked at the distribution of foreign language material, elements of informal register, register markers and different transliteration patterns. In addition to this, Tseliga carried out face-to-face interviews with internet users, in an effort to identify the attitudinal aspects of this phenomenon, and she also conducted an experiment to explore the cognitive aspects of Greeklish.

With regards to the attitudes towards these new orthographic practices of Greek internet users, Koutsogiannis and Mitsikopoulou (2007) report that the use of Greeklish has provoked strong debates. In June 2001, the Academy of Athens released a declaration condemning this new way of writing and regarding it as a threat to the Greek language. A number of other publications, by Greek scholars and linguists, also appeared in

Table 2.

1	<DarkSorrow-> pounto **sh**i*ll*ouin olan	'where is the doggy my dear chap'
2	<DarkSorrow-> esou ise po*ll*a austiros	'you are very strict'
3	<alikoftero> en e**ss**o jiaplo*nn*i	's/he is home laying down'
4	<alikoftero> ma pios ego?	'who me?'
5	<DarkSorrow-> esi olan	'you my dear chap'
6	<udroxoos> twra ena lepto **tz**ai e*nn*a	'one moment and I'll
7	sas deiksw egiw	show you'

(Themistocleous, 2008)

the Greek press. What is interesting, however, is the fact that some Greek internet users share the same concerns, although they use Greeklish in their online interactions[3].

Although a few studies have been carried out in order to investigate the use of Greeklish and how this new orthographic practice is perceived by users and non-users, there is still one important issue that needs to be taken into consideration. Similarly to other languages around the world, Greek is not homogenous as it contains a number of regional varieties, such as Cretan, Corfiot, Cappadocian, Tsakonian, and many more. It should be noted that some of these varieties are relatively distinct from Standard Greek in all linguistic domains (Kontosopoulos, 2001).

In an attempt to investigate how a non-standard variety of Greek is used in online environments, Themistocleous (2008, forthcoming) focused on the regional variety spoken in the island of Cyprus. A typical characteristic of Cypriot-Greek is that it contains a number of phonological features that are not evident in Standard Greek, for instance sounds such as the post-alveolar fricative /ʃ/, the post-alveolar affricate /ʧ/ and geminates. Similarly to regional varieties in the Arab-speaking world, Cypriot-Greek does not have a standard official orthography and it is rarely used for written realms, with the exceptions of folk literature, advertising and cartoons. By collecting data from channel #Cyprus in IRC, Themistocleous found that Greek-Cypriot internet users utilize a Romanized version of their regional variety in online text-based communication, instead of using either Standard Greek or, at least, the conventional Greek alphabet. The following is an example of a stretch of continuous interaction between three IRC participants in #Cyprus (see Table 2).

Greek-Cypriot internet users found innovative ways to represent sounds that do not exist in the standard variety and for which there is no Greek equivalent letter. In particular, three different ways of representing each of the above mentioned typical Cypriot-Greek sounds were found, some of which are evident in the example above:

- The sound /ʃ/ is represented by <sh> (used in line 1, in bold), <si> and <sx>
- The sound /ʧ/ is represented by <tz> (used in line 6, in bold), <j> (used in line 3, in bold), and <tj>
- Geminates are transcribed by duplicate Roman letters (used in lines 1, 2, 3, and 6, in italics).

Themistocleous (2008) maintains that the orthographic choices of Greek Cypriots are influenced by foreign sources (i.e. English spelling) and also from conventions, found in Cypriot-Greek folk literature. Attitudes towards the use of Cypriot-Greek were also investigated. Previous research has revealed that Greek-Cypriots have negative attitudes towards their native language and that the use of the sounds /ʃ/ and /ʧ/ in speech is stigmatized (Papapavlou 1998, 2001). Themistocleous (2009) found that, not only these sounds are widely used in online chat, but also internet users have positive attitudes towards the online written form of the regional variety. This shows that the internet has the power to change a given language as well as the attitudes of those who use it.

East Asian Languages

Chinese portrays an interesting case for investigation, as this language contains a number of unintelligible varieties, which can easily be considered separate languages, rather than dialects (Rogers, 2005). Although a speaker of one Chinese dialect (e.g. Cantonese) might not be able to understand a speaker of another Chinese dialect (e.g. Mandarin), they do share a common writing system.

Gao (2001) found that Chinese students in the United States code-switch between English and Chinese. When it comes to the representation of the latter, they seem to employ the Pinyin alphabet instead of the Chinese characters and indicate the tone of the Chinese elements with numbers. Some examples provided by Gao (2001) include the following[4]:

1. Can we go to *Dong1ha3iyu2cun1* ('Mandarin Wok') to eat?
2. Who knows what medicine cures *jiao(3) mo(2) yan(2)* ('keratitis')?
3. OK. I'll go home and eat *dan4chao3fan4* ('rice fried with eggs')
4. Hi, I have not yet received your *deng1 mi2*('lantern riddles'). Please give those to me today by 3pm.

(Gao, 2001, p.21)

The case of Taiwanese was also investigated. In order to understand the online orthographic practices of Taiwanese internet users, it is important, first of all, to make a brief reference to the sociolinguistic situation in this country. Mandarin Chinese is the most prestigious variety in Taiwan and it is used in major urban areas. A Southern Chinese dialect, namely Southern Min or *Taiwanese*, is mainly spoken in rural areas, yet it does not have a standard orthography, therefore it is rarely used for writing purposes. Although this variety enjoys less prestige compared to Mandarin, its status is currently improving. A more stigmatized variety, Taiwanese-accented Mandarin (*Taiwan guoyu*), is used by older, less educated, rural individuals, who are speaking Mandarin with a relatively strong Taiwanese accent. Su (2007) identified four popular creative uses of writing systems in Taiwanese Bulleting Boards (BBSs): (1) rendering English sounds in Chinese characters [5], (2) rendering the non-standard Taiwanese in Chinese characters, (3) rendering Taiwanese-accented Mandarin in Chinese characters, and (4) recycling *Zhuyin Wen* (the transliteration alphabet used in elementary education). With regards to the three initial patterns of writing, which in some cases include non-standard spellings (especially in the case of Taiwanese-accented Mandarin, represented in Chinese characters), Su (2007) observed that "All three patterns of writing are taken as a way to show congeniality, humor, and an online persona. In other words, the explicit ranking and the functional differentiation among the three in speech contexts becomes much more obscure in online contexts." (p. 78). The use of Zhuyin Wen, although quite popular, was heavily criticized by informants, possibly because this writing system might be associated with lack of ability or willingness to master the use of Chinese characters (Su, 2007, p. 83).

In the Hong Kong setting, the Cantonese variety is spoken and English is equally important. Through the use of a questionnaire and by collecting data from e-mails and ICQ[6] interactions, Lee (2007) explored the writing patterns of undergraduate students in Hong Kong. Lee found that the orthographic practices of internet users in Hong Kong are rather different than that of Taiwanese, as the latter seem to use Chinese characters in a playful way, to represent their language (including their non-standard varieties). In Hong Kong however, internet users resort to different strategies to write their language including: (1) the Romanization of Chinese elements and literal translations (especially sentence-final particles), (2) the use of Cantonese characters (which requires a special computer software – the Hong Kong Supplementary Character Set), (3) homophony (users find a Chinese character that resembles the pronunciation and tone of the target language), and (4) a combination of "o" or "0" with Chinese characters (perhaps due to the visual similarity, "o" or "0" are used to represent the character < 口>). Another interesting tendency is the use of number homophones for shortening purposes, with the aim to indicate familiarity and to facilitate fast typing[7]. For instance, <88> is used for '*bye bye'* as the pronunciation of number 8 in Cantonese is *baat3* and, even sometimes, resembles the pronunciation of the English word '*bye'*. Lee (2007) maintains that the majority of the respondents of the questionnaire showed preference toward Romanization, whereas although Chinese/Cantonese characters were used quite frequently, this was not the preferred method for writing.

Similarly to the languages mentioned above, research in Japanese has also revealed that internet users use their native scripts innovatively, by bringing into play creative orthographies and punctuation. According to Nishimura (2007), their aim is to represent colloquial style. For example, in standard Japanese, the smaller-sized <っ> is used to represent a long consonant. Nishimura observes that in informal, online interactions, the insertion of this character in the expression はっじめまして *hajjimemasite* 'first time to see you'[8] serves to create "a more vivid picture of how this expression might be pronounced; viewers get the impression of a clear and cheerful, high-spirited articulation. The writer's intention in adding this symbol is to convey the speakers' articulation as accurately as possible; in this way the sender can convey a high degree of affect and closeness, as if sharing the same physical space and time of conversation with the viewer" (pp. 169-170).

Languages that use the Cyrillic Alphabet

During the initial stages of the internet, speakers of languages that use the Cyrillic alphabet were faced with the same challenge as speakers of Arabic, Greek and East Asian languages. Magner (2001), for example, explains that the limited character set of the internet has created communication problems among speakers of Slavic languages, written in the Cyrillic alphabet (i.e. Serbian). As a solution, internet users eliminated the use of diacritic marks and transliterated the Cyrillic characters to Roman, when they were interacting online. With new developments, however, in the domain information technology, the Cyrillic alphabet eventually became available online. This means that nowadays, speakers of languages such as Russian, Bulgarian, Belarusian, Serbian, Macedonian, and so on, are able to communicate online, using their native writing script. Dimova (2007), for example, makes reference to Macedonian websites, written in the Cyrillic alphabet.

Yet, recent research has revealed that some internet users do not seem to follow the conventional spelling rules of their language, even if they are using the Cyrillic script (Loewen, 2008; Mokroborodova, 2008). Loewen refers to this new way of writing as "unusual orthography" (p.24) whereas Mokroborodova suggests the term "novograf" (p.62)[9]. According to Loewen, the shift from the conventional Russian spelling and the use of this novel, online spelling is not due to ignorance or carelessness, but it is, in fact, deliberate. The general principal is based on "I write as I hear" (Mokroborodova, 2008, p.70). In other words, internet users are trying to represent colloquial speech online, using non-standard orthographies. Certain rules that underlie the orthographic choices of internet users include the following:

- Vowel reduction (a typical feature of spoken language), for example the use of <a> instead of <o> and <u> instead of <e>, as in the words <чессна> [*čessna*] instead of <честно> [*čestno*] 'honestly', and <када> [*kada*] instead of <когда> [*kogda*] 'when' (Loewen, 2008, pp. 25-26)
- Voicing or devoicing of consonants, for example <пат> [*pat*] instead of <под> [*pod*] 'under' (Loewen, 2008, pp. 25-26)
- Transformation of morphemes, which then become popularized, and therefore the norm, in online writings. For example, the affixes <*–uk/-ek*> are typically written as <*-ег*> online, representing, therefore, the pronunciation of colloquial language. Based on this principle, internet users write <*участнег*> instead of <*участник*> for 'participant' and <*красавчег*> instead of <*красавчик*> for 'handsome' (Mokroborodova, 2008, p.77).

Mokroborodova (2008) notes that the popularity of this new spelling has been met with mixed reactions. On the one hand, journalists are writing alarming articles and teachers are expressing their worry over a language crisis among teenagers. On the other hand, internet users are looking into developing novel possibilities that will enable them to express themselves better online.

IS THERE SCOPE FOR ORTHOGRAPHIC VARIATION FOR ROMAN–BASED LANGUAGES?

African Languages

In a comprehensive account of how the Roman alphabet was introduced in Africa, Pasch (2008) makes reference to the influence of the internet on African languages. During the colonisation of Africa by Europeans, Christian missionaries made an effort to create writing systems for African languages, in order to promote literacy and to enable local population to read the Bible in their own language (Pasch, 2008). Since then, the Roman alphabet has served as the medium of writing for a number of African languages, some of which became predominant (e.g. Swahili, Zulu, Hausa, Amharic and Somali) (p.76). Speakers of other African languages have resisted this change and they were opposed to having their language reduced to writing, remaining, as a result, oral languages (i.e. speakers of the Fur languages in Darfur) (p. 75). Also, during the colonization, some earlier traditional scripts, that had a long tradition of written literature (e.g. Ethiopic, Tifinagh, Ajami), have been replaced by the Roman script as well.

In an era of computer-increased technology, the presence of African languages online is increasing. Van Gass (2008), for example, reports cases of code-switching between English and Afrikaans on IRC in South Africa. But it is not just standard languages, as in the case of Afrikaans, that are now evident online. Pasch (2008) observes that:

Despite the reluctant use of the Internet possibilities by the majority of African languages, a novel striking development in the use of the Internet as a medium of written communication can be observed with regard to some non-standard languages. The so called "street languages" Sheng and Engsh (Kenya, Tanzania) and urban Kikongo, a Kikongo-French mixture, are used in online forums. (p. 88)

In other words, oral languages, that previously were not used in writing and do not have standard spellings, are now used in CMC.

Another interesting development is that, since the internet now offers fonts for almost all African scripts, ancient writing systems, that have been replaced by the Roman alphabet during the colonization of Africa (i.e. Ethiopic, Tifinagh, Ajami), "are currently enjoying a revival process" (Pasch, 2008, p.88) online.

Pidgin and Creole Languages

Creole and Pidgin languages are also gaining ground in the written domain, as recent research has revealed that such languages are frequently used for writing text messages or communicating online.

Deuber and Hinrichs (2007) investigate the online orthographic practices of speakers of two oral languages, namely Jamaican Creole and Nigerian Pidgin. Both languages are used in complementary distribution with English in the respective countries, in a relationship which can be characterized as diglossic (Deuber & Hinrichs, 2007, p. 24). The corpus of this study consists of around 40,000 words on Jamaican Creole and 90,000 words on Nigerian Pidgin, obtained from postings to internet discussion forums and e-mails. The results revealed that, although the orthographic practices evident online were mainly based on the orthography of Standard English, cases of non-standard spellings were also evident. In the Jamaican Creole corpus, non-standard spellings were used in order to represent homophonous cognates, which have developed a distinct meaning from English. For example, the English word *yard* also means 'house, home country (i.e. Jamaica)' in the local variety. When internet users want to convey this meaning they use the non-standard spellings <yaad> or <yawd>. Similarly, in Nigerian Pidgin non-standard orthographies are used to represent local pronunciation. For instance, <wit> is used for *with*, <den> for *then*, <fia> for *fear*, and so on. Non-standard spellings are also used for lexical items that are not found in English, for example <sabi> 'know' a word of Portuguese origin.

Mauritian Creole is a French-lexified Creole language, spoken in post-colonial and multilingual Mauritius. Similarly to the case of Jamaican Creole and Nigerian Pidgin, Mauritian Creole is an oral language, as it does not have a standard official orthography. According to Rajah-Carrim (2008), there are however several non-official writing systems: (1) an etymological system based on French orthographic conventions, (2) phonemic systems based on the sounds that occur in the language (this includes a writing system promoted by the group *Ledikasyon Pu Travayer* (LPT) and a writing system that is promoted by the Church, known as *grafi Legliz ek Dev Virahsawmy* (the "orthography of the Church and Dev Virahsawmy"). In a time when the Mauritian government is considering an official orthography for this language, Rajah-Carrim (2008) points out the possible impact of CMC on the standardization of the language and asks whether "It is possible that increased usage of Kreol in new technologies will lead to the emergence of orthographic conventions among users of the language without the intervention of language policy-makers" (p. 223). Although many respondents in this study stated that they never wrote Creole, some of the young respondents specified that they use this language for writing e-mails and texts. What is also interesting is the fact that preference was shown towards the LPT writing system than toward the French one. This tendency could relate to the fact that Mauritian-Creole-speakers want to promote a separate identity from French, and this is manifested in their writings. With regards to the standardization of this language, Raja-Carrim (2008) raises the issue whether CMC can influence the status of Kreol as a written language (p. 210).

What About English?

English has a highly standardized spelling system and, as mentioned above, Milroy and Milroy (1991) maintain that, in general, there is no scope for orthographic variation. A number of studies, however, revealed the opposite, as orthographic variation is widely evident in online environments.

Similarly to the languages discussed above, English-speaking internet users may also try to deviate from the standard orthography in order to represent in online environments colloquial style.

In a study carried out by Shaw (2008), it was found that typical features of regional accents in England (not the UK), the United States and Ireland were widely used in Facebook (a free-access social networking website). The findings of this study indicate that internet users use <-in> instead of <-ing> for the endings of the verbs 'doing', 'having', 'being' and 'going', <ya> and <ye> for 'you', and <da> and <de> for 'the'[10]. Shaw maintains that spelling rebellion in this case is used to represent local covert-status pronunciation.

In another study, Sebba (2007b) makes reference to Sacha Baron Cohen, an actor who presents himself as 'Ali G', a hip hop journalist and a youthful gang leader. 'Ali G's' spoken language contains non-standard Southern British English linguistic features, derived from Jamaican Creole. His hip hop style and appearance, in conjunction to the language he uses, allow him to portray himself as a stereotypical Southern British urban adolescent "of ambiguous ethnicity but based on an apparently black stereotype" (Sebba, 2007b, p. 361). With an increased popularity, 'Ali G' became the topic of discussion on many websites, including message boards and guestbooks. According to Sebba (2007b), the language found in such online environments "has become the vernacular of the 'virtual ghetto'" (p. 362). This means that internet users are using non-standard orthographies in an effort to represent non-standard pronunciations that are characteristic of 'Ali G's' spoken language. The following is an example provided by Sebba:

"Easy Now Dave, me is feeling what you is saying, aye? But you is tick, and me an' me crew is gonna come round and lash you up one time." (Sebba, 2007b, p.373)

Androutsopoulos (2007) presents similar findings from an investigation of German-speaking hip hop websites and discussion boards.

FUTURE TRENDS

The studies presented in this chapter provide valuable insights into the ways that internet users overcome technological limitations, by finding new and innovative ways to manipulate orthography, in an effort to represent their native language in online environments.

Romanization was proved to be a powerful solution, especially during the early years of the internet. With the continuous development, however, of the Unicode Standard and the emergence of several software systems for the support of various languages, one important question is raised: Seeing that nowadays internet users have the opportunity to use a combination of their native writing system and Roman characters in their online interactions, is it possible that, in the future, a phenomenon like Greeklish and Romanization of Arabic will cease to exist?

Another important issue that has fertile ground for further exploration relates to the use of oral languages and their possible standardization. Studies have revealed that languages with non-standard official orthography, which are rarely used for written realms, are now widely used in online text-based communication (i.e. Arab varieties, Cypriot Greek, Taiwanese, African languages and Pidgin and Creole languages). It is necessary to provide systematic cross-linguistic research into the ways that speakers of oral languages use orthography to differentiate themselves from other social or ethnic groups and to promote their own distinct identity online. More research is also needed to assess the role of CMC in promoting norms for non-standardized languages.

CONCLUSION

The internet offers an excellent opportunity to observe the processes by which speakers of different languages around the world overcome technical limitations and play with orthography to achieve their own communicative purposes. The studies presented in this chapter clearly demonstrate that orthography plays a fundamental role in promoting one's identity, especially in online environments. For some, it is a fashionable and cool way, used among members of younger generations, to promote an interesting and entertaining identity that goes against the adult forms, against the norm. For others it is simply a response to technical limitations and a convenient way for their typing purposes. Yet, for others it is a way to convey a local flavor into their writings, promoting, therefore, their own ethnic identity within a global, multilingual environment.

It is without doubt that new technologies have the power to shape language use in ways that are different from what we have known so far. An important issue that should be taken into consideration is that since we are dealing with digital technology, it is possible that some of the contents discussed in this chapter could one day become out of date. Technological progress and the emergence of new and more sophisticated forms of CMC allow for additional innovations and unpredictable changes. Crystal (2001) maintains that "Any attempt to characterize the language of the Internet, whether as a whole or with reference to one of its constituent situations, immediately runs up against the transience of the technology" (p. 224). Although it is difficult to predict how the online orthographic practices of internet users will develop in the future, further research may bring into light new and interesting practices.

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KEY TERMS AND DEFINITIONS

Diacritic Mark: A mark added to a letter to indicate a special pronunciation (e.g. <ç>, <ñ>, <â>)

Diglossia: A sociolinguistic situation characterized by the simultaneous use of two language varieties, which are usually in complementary distribution. The High (H) variety is standardized, it is ascribed more prestige and it is used in formal situations and in writing. The Low (L) variety is used in oral informal communication and it, generally, does not have a standard official orthography.

Greeklish: The transliteration of Greek alphabet with Roman characters, frequently used by Greek internet users

Pinyin: A Romanization system for standard Mandarin. This system is taught at elementary level education, before students start learning the Chinese writing system.

Romanization: The representation of a written word with Roman characters, where the original word uses a different writing system (or none). Methods of Romanization include transliteration and transcription.

Transcription: the conversion of spoken language (e.g. sounds) into writing

Transliteration: the representation of written text (e.g. word or letter) from one writing system into a different writing system

Writing System: A set of rules for using one (or more) scripts, to represent human language in written form. Examples of writing systems include the Roman alphabet, the Cyrillic script, the Chinese writing system, the Japanese writing system, and s on.

ENDNOTES

1. This forum is dedicated for the discussion of the culture of the Punjab region in India and Pakistan (Paolillo, 1996).
2. Although, technological advance has led to the development of special characters to support non-Roman-based script languages, it seems that some internet users are still in favor of the use of Roman characters for writing in online environments.

[3] It is also worth to mention that, since the availability of the Greek fonts online, internet users now have the option to use either the Greek alphabet or Greeklish. This has also led to the development of Greeklish-to-Greek translation services online, which enable those who receive or write Greek messages to transliterate them into Greeklish, and the vice versa. One such service is offered by the Research and Innovation Centre 'Athina' (part of the Institute of Language and Speech Processing - Greece) (http://speech.ilsp.gr/greeklish/greeklishdemo.asp).

[4] Chinese in Pinyin is italicized.

[5] Several software systems are now available for typing Chinese characters (c.f. Su, 2007, Lee, 2007)

[6] ICQ is an instant messaging program. The name *ICQ* is a homophone for the phrase "I seek you". Source: http://www.icq.com/

[7] This pattern also exists in English, for example *ur* 'your', *thnx* 'thanks', etc.

[8] The conventional orthography for this expression is はじめまして *hajimemasite* (Nishimura, 2007, 169)

[9] Other terms like 'network slang' have also been used by individuals to refer to this phenomenon (Mokroborodova, 2008).

[10] It should be mentioned that internet users from the three countries used these linguistic features in varying degrees.

Chapter 21
Analyzing the Discourse of E-Mail Communication

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ABSTRACT

Communication by electronic mail has become a widely used medium within various organizations. Yet, the possible emergence of various discourse features is not widely discussed in the literature. This chapter investigates the discourse features of real examples of e-mail messages drawn from an international commercial source in Turkey from several aspects; functional categories, stylistic features and register. Analysis of functional categories suggests that messages are used to disseminate information for a variety of work-related purposes to inform, to request, to direct, and to praise. Stylistic analysis reveals that messages contain various features analogous to spoken discourse. At the level of register, messages are found to display various levels of formality. From the analysis, those features commonly used in e-mail messages are illustrated with reference to sample data. The chapter concludes with a discussion of the findings and suggestions that the future research might take.

INTRODUCTION

The advent of computers in the Digital Age has profoundly changed the process of sending and receiving information in the media of business communication. Rice (1995) notes that "electronic mail has given communicators a new and powerful tool for reaching audiences within, across, and outside organizational boundaries" (p. 110). Communication tasks that have been previously accomplished through face-to-face conversation or telephone are largely replaced by electronic mail (e-mail), which has become the most frequently used communication tool to produce and at work.

Many researchers converge on the belief that e-mail is a more useful and versatile medium than other forms of intra-organizational communication including face-to-face meetings and telephone conversations (Adams, Todd & Nelson, 1993; Zack, 1994; Taylor & Van Every, 2000). An international

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survey by Rogen International (2001), a global communication consulting and training company, on the impact of e-mail has shown that the use of e-mail has grown by more than 600% in six years from 1995 to 2001, with executives spending at least two hours per day, receiving, checking and sending e-mails in the workplace communication. The survey, conducted with the participation of one thousand four hundred senior and middle level executives, also shows that more than 66% of executives believe face-to-face communication skills had declined in their organizations due to the growing use of e-mail, and that 85% of participants agree that e-mail has helped improve organizational communication and has revolutionized the quick and broad distribution of information.

Other studies have also shown that e-mail communication to carry out various tasks provides a more efficient communication channel thus making it preferable to older means of communication (see Markus, 1994; Sullivan, 1995). Sullivan (1995) conducted a survey to find out preferences among staff members for face-to-face, telephone, written and electronic mail communication channels. The study reveals a significant preference among staff members for the interactive communication technology of e-mail over other communication channels.

In describing the emerging technology of e-mail systems, Lee, in 1983, predicted that "the impacts of electronic message transfer will extend far beyond the postal and telecommunications industries to those involved in the production, handling, and transfer of information and messages" (p. 2). In 1990s, this prediction has been confirmed by Selwyn & Robson (1998) who noted that "society has seen the emergence of e-mail as an increasingly pervasive means of communication. Throughout the 1990s, due to its relative simplicity and effectiveness, e-mail has quickly been integrated into business and commerce". Likewise, more recently, Crystal (2001) argues persuasively that computer-mediated language represents the fourth medium of communication developed in human history, with spoken language, written language, and sign language representing the first three.

Gains (1999) underlines three unique combination of characteristics of e-mail as a communication means, which can account for the reasons for the explosion in the use and preference of e-mail. First, e-mail is asynchronous in that it does not require the real life existence of sender and receiver for communication to occur. Second, e-mail provides recipients with text written messages. Third, e-mail can address multiple recipients in a single action. And senders can distribute messages quickly and easily as it is convenient and relatively low cost.

Given the crucial role of e-mail for human communication in the Digital Age, analyzing e-mail messages may yield significant information as to the purpose for which people write e-mails, the conventions writers use, and textual features of business communication. Thus, findings may be helpful for teachers, course designers and materials producers involved in the teaching of written communication in Business English. As confirmed by Rice (1995), for communicators effectively creating, transmitting, and receiving information requires careful consideration of how to control multiple, interacting variables that affect message style.

This chapter aims to explore the discourse features of real examples of e-mail messages from an international commercial source to reveal functional categories, stylistic features and register used in messages. First, theoretical grounding for the development and analysis of e-mail as a communication system is provided. The ensuing section gives the rationale for initiating this study and details the methodology that is used to address the three issues which have become research questions guiding the rest of our study. The corpus of data is described, followed by a detailed analysis of the key text features of data source. The article concludes with a discussion of our findings and directions that future studies might take.

BACKGROUND

Since e-mail became an increasingly important means of intra-organizational communication, some researchers have begun to examine the effects of this powerful new media on the language used in the messages. Gimenez (2000) examined the register and the style used in 63 business e-mail messages. The stylistic analysis showed greater similarity to informal, unplanned spoken discourse than to formal planned written discourse, as exemplified by the frequent use of abbreviations and contracted forms. The findings also revealed that most messages contain short and simple structures rather than long elaborate ones. Moreover, in her analysis involving 40 letters and 40 randomly selected business e-mails following basic characteristics of written and spoken discourse, Gimenez found that business letters contain more than twice as many elaborate syntactic structures to "express propositions" than the commercial e-mail messages, twice as many complete sentences than e-mail messages, containing no elliptical or contracted forms. The business e-mail samples, on the other hand, contain almost three times the amount of simple, straightforward syntactic structures, elliptical and contracted forms.

A similar finding is observed by Rice (1995) who conducted a stylistic analysis of samples of e-mail messages from four organizations through identifying textual features common to electronic mail. She found that short and serial sentences dominated over long ones and writers preferred active verbs over other forms, indicating that composing processes for e-mail are somewhat spontaneous. These finding corroborate those of other studies which also show that e-mail messages often take on the characteristics of informal, spoken conversation often including short, informal strings of messages thus resembling the turn taking that occurs in face-to-face conversations (Adam, 2002; Baron, 2000; Spinuzzi, 1994). Unlike studies which identified features similar to the written conversation, the study conducted by Gains (1999) involving the style and register analysis of a corpus of 116 e-mail messages drawn from a single commercial source, suggests that commercial e-mail messages appear to be largely consistent as using the semi-formal tone of business communication.

These arguments seem to support the idea that e-mail messages combine features of spoken discourse, in terms of its nature, with features of written discourse in regard to its representation, e.g., it must be written to be transmitted. According to Brown & Yule (1983), spoken language is mainly characterized by short, fragmentary utterances, a great deal of repetition, and the absence of conceptual density. Likewise, Bygates (1987) states that oral language tends to be less dense compared to written language. In support of this argument, Bachman and Palmer (1996, p. 75) suggest that "engaging in an electronic discussion probably has more in common with an oral conversation than with reading…". Gimenez (2000), in tracing the origins of e-mail messages, notes that "e-mail as a mode of communication can be said to have derived from telephone conversation and as such resembles the features of spoken rather than written language" (p. 238).

Although researchers have examined the effects of e-mail on written business communication by primarily focusing on analyzing messages for various features, many of them have still called for further investigation into the effects that this recent technological development might have on written interpersonal communication (Eustace, 1996; Gains, 1999; Gimenez, 2000; Lee, 1983; Louhiala-Salminen, 1996; Mackenzie, 2000). As suggested by Gaines (1999) "as electronic messaging system become ever more widespread, there is a real need for academic research to catch up the task of adequately defining the manner in which people are already using this technology" (p.100).

Therefore, much remains to be done about this digital communication tool for the following reasons: First, e-mail is a relatively recent communication tool. Therefore, as also supported by Rice (1995) "there is an immediate need for more work on questions of style because e-mail is a relatively recent phenomena with rhetorical boundaries and conventions that are not as thoroughly explored as those of more traditional forms of communication" (p. 111). Next, existing studies into the effects of e-mail on written business communication are based on relatively small size of corpus of e-mail messages, which is not surprising given the difficulty of accessing employees' e-mail messages. Therefore, there is a need for further research into the discourse features of e-mail messages using larger amount of data.

In addition, studies exist which report that e-mail users often perceive e-mail messages to be difficult to interpret, especially in international contexts where the senders of messages are native speakers of English but the recipients are non-native speakers (Kırkgöz, 2001; 2003). Such a difficulty is supported by lack of guidance in available textbooks written for students of English for academic/special purposes (EAP/ESP) regarding the use of e-mail as a means of communication efficiently (Gains, 1999). In the teaching of written business English communication, it is important that the students of business English be familiarized with certain functional stylistic and register features of messages. The outcome of a survey conducted with eleven well-known ELT textbooks demonstrated that only two textbooks (Jones & Alexander, 1989; Swales & Feak, 1995) mentioned on the topic of e-mail messages. Therefore, much remains to be done in the field of electronically-mediated communication to discover the features contained in e-mail messages.

THE PRESENT STUDY

The source of data which provided the basis for the present study was drawn from an international textile company located in Turkey, which produces high quality garments for the world's leading brand names. The textile and clothing industry is a major contributor to the Turkish economy and is by far the largest employer within the manufacturing sector. Given the importance of the increasingly competitive demands of the global market, it is essential that Turkish textile companies keep up with the international standards in order to satisfy their customers' expectations. Obviously, this can largely be ensured by providing quality products in a timely manner. An important means of promoting the quality of finished products can be achieved through efficient and rapid communication in the company.

The company in question forms a *business community* employing about 280 people, including managers, line supervisors, shop floor employees, sales representatives as well as foreign textile specialists who share the common goals of contributing to the successful functioning of the company and of producing high quality products. The community has several means of communication, such as meetings, conversations, faxes, and phone calls. E-mails constitute an additional important medium of communication, and are ideally suited for internal communication. Being an international company, community members consist of both Turkish native speakers and British native speakers of English. The job of the British native speakers of English in the company is to ensure that the finished products are up to the standards specified by the related foreign company. Since each person has access to a computer, daily communication through e-mail messages with people in all sections of the company, particularly with those who are involved in the actual production cycle, including supervisors and shop floor employees, proves both practical and efficient. Because communication between native speakers of English and Turkish-speaking employees is largely conducted through e-mails, accurate interpretation of those messages is of great importance for Turkish employees, as the recipients of messages, so that they can act upon and fulfill requested tasks.

Problem

In order to identify the specific problems that the Turkish employees experienced in understanding e-mail messages in the above mentioned company, I conducted needs analysis focusing on the current situation. Findings revealed that one of the major problems encountered by the Turkish employees was related to their inability to accurately understand e-mail messages they received from native speakers of English, and to produce appropriate responses to them.

Unfortunately, a large number of those people working in the production cycle, including line supervisors, seemed to lack adequate knowledge of English to interpret accurately e-mail messages they received, which led to a serious communication breakdown between Turkish e-mail recipients and native English speakers. It was pointed out by the British employees that lack of knowledge, stemming from the Turkish workers in adequately interpreting English messages they received, prevented them from engaging in meaningful communication via e-mail and from efficiently carrying out business-related tasks on the job. Furthermore, it was also stated that accurate interpretation of messages by the recipients was essential to maintain the communication link and to ensure the smooth running of the business. It was feared that leaving e-mails unanswered or not being able to respond to their messages could not only slow communication but also productivity in business. Also, organizational effectiveness can suffer when e-mails go unanswered for days, causing individuals to misattribute explanations for this.

This research was therefore initiated to investigate the discourse features of real e-mail messages from this commercial source to understand the specific workplace English communication needs of the personnel by addressing the following research questions:

1. What purposes do e-mail messages serve; in other words, what functional categories do e-mail messages contain?
2. What are the stylistic features of e-mail messages?
3. What register characteristics do e-mail language display?

ANALYSIS OF THE ELECTRONIC DISCOURSE

The e-mail messages that form the corpus of data used in this study consist of 220 messages which were randomly printed from the recipients' files with no pre-defined criteria for selection, over six months from February to June 2006 after obtaining the manager's approval. All messages were sent from five native speakers of English, all happened to be British at the time, to Turkish recipients working in the same company.

The contents of messages were analyzed from three aspects; functions that the messages serve, stylistic features and the register. Content analysis was performed to find common patterns in textual data. Some statistical analysis such as the frequency of the occurrence of common patterns has been made in order to present a clearer picture of the examples studied.

RESULTS AND DISCUSSION

This section consists of three parts, following the research questions addressed. The first part presents functional categories of e-mail messages while the second part deals with the stylistic conventions of e-mail messages, and finally register of the e-mail language is analyzed.

Functional Categories of E-Mail Messages

Functional analysis was based on the taxonomy of Ghadessy and Webster's (1988) classifica-

Table 1. Functions of e-mail messages

Functions	Number (%)
Informative	98 (44.5%)
Directive	66 (30%)
Request	40 (18.2%)
Praise	16 (7.3%)
Total	220 (100)

tion of business communications. Ghadessy and Webster's classification was particularly useful because their method affords an effective way to establish functional principles objectively through systematically assigning messages to functional categories. Accordingly, the commercial e-mail messages were read, coded and assigned four functional categories: the three functional categories *informative, directive* and *request* assigned to messages in Ghadessy and Webster's (ibid.) classification, and in the present study, an additional category of *prais*e was identified, as illustrated in Table 1.

On average, each of these messages contained only one functional category (request), addressing a single issue (77%), and only 23% contained more than one functional category, e.g., request, and praise. Where examples of the data are given below, all original typographical errors by the senders have been retained; however, to preserve confidentiality, the name of the commercial system has been changed and personal names are indicated by: (xxx).

From the data, it has been determined that in this company, e-mail messages are employed mainly to provide information (44.5%) about work-related topics, such as prices or the availability of products as illustrated in the following samples.

e-ml78: At the moment we have got 60 000 (brand) in our stock. From that stock we will use 20. 000 (brand) pieces for the planned order.

e-ml80: We will be holding a pilot assess meeting in….. room at 3 pm today.

e-ml92: please find the attached management audit attendance report for period 4.

Responses to prior requests are found to be relatively infrequent which may point to the difficulty in sending messages experienced by the Turkish recipients. It may also be assumed that the original request was for conveying information itself.

The analysis reveals that making a *request,* which accounts for 30% of all messages, is the next functional category. Requests are expressed as either questions or statements. Messages containing requests fall mainly into two categories: 68% are requests for information about specific business related issues, 32% of them are requests for actions regarding the completion of a particular job, such as:

Requests for Information

e-m107: Can you tell me if we have any stocks on the below items?

e-ml32: Could you please let me know if there is any approval?

Requests for Actions

e-ml37: Can you please provide us with the samples of the styles

e-ml82: I need by lunchtime tomorrow a list of any gmts by size, length and colour you wish to ship on the vans this week.

The next function that e-mail messages serve is to issue as a *directive* (18.2%), which involves giving directions or instructions on some work-related issue, a task for which the medium of e-mail is ideally suited, as illustrated in the following sample:

e-ml24: Do that and then order 70% as I told you last week.

In all messages included in this category, directives are expressed as 'commands', which might indicate that they play an important role in implementing the management policies of the organization.

The final functional category is *praise* (7.3%), which occurs when the sender wants to remark upon the quality of the work done, as illustrated in the following extracts:

e-m114: Well done!
e-m213: Keep it up

Stylistic Features of E-Mail Messages

To examine the stylistic features in the sample, I used Gains' (1999) method for analyzing style. I selected this method because it assumes that any analysis of textual features of the written word must comprise a comprehensive analysis of what appears on the printed page, in this case the computer monitor. As Sproull & Kiesler (1986, pp. 1493) have noted, although e-mail shares components of the spoken and written word, it is, nevertheless, a "text-based" form of communication". Thus, Gains (1999) is considered particularly useful in that her method affords an effective way to establish rhetorical principles objectively - through systematic counting of textual features in order to map stylistic elements. In particular, it offers a practical means for investigating major style variables that are profound indicators of stylistic choice, no matter what type of message is involved. Stylistic features of messages have been examined under the following subheadings: subjects; openings; closings; abbreviations; word omissions and capitalization, and lexical choice.

Subjects

With regard to the subject of the messages, the page header layout of the e-mail messages is automatically-generated at the top of the message, and consists of sub headings for: *Date, To, From, Subject*, as noted by Hatch (1992, p. 13). In all cases, the subject is declared openly in the header with subsequent information giving details in the opening line of the message, and the subjects are closely related to the function of the message.

Some referenced examples are given below followed by the assigned function in parenthesis:

e-m71: Subject: Management audits (informative)
e-m74: Subject: Button approval cards update (informative)
e-m36: Subject: Cutting loading plan (directive)

Openings

Of the 220 examples in this data, most messages (76%) used some form of opening device at the beginning of the message; however, 24% of the messages had *no opening greeting* at all. The most commonly used opening devices were *hi/hello* with 67%, and 23% of the messages used *recipient's name,* while 13% used *dear xxx.* The remaining 10% of the messages used *Dear all* which indicates that these messages were sent for multiple distributions. In the data studied, 44% of the messages were sent to individual recipients while the remaining 56% to multiple distributions.

Closings

Hatch (1992) points out that "the sender of an electronic message may or may not provide an additional opening, but will have to generate a closing" (p.13). In the data analyzed, several particular methods of closing appear to dominate the convention for signing-off e-mail messages. In 55% of the examples, some variation of *regards* and *best regards* is used, whereas 17% of the messages used *thank you* or *thanks*. These figures seem to correlate loosely with the number of informative and directive and request messages in the data (44.5 and 30% - 18% respectively), and suggest a link between *information - (best) regards,* and *directives* and *request – thank you*. In 18% of the messages only the *sender's name* is used to close the message. Of the remaining examples, 10% used *no closing* at all.

Abbreviations

Word abbreviations were very common in e-mail messages, and the findings show over a 32% usage, with 70 examples. Different types of word abbreviations, all in evidence in the samples collected are categorized into three groups as *standard abbreviation, personalized abbreviation* and *abbreviations* typically associated with the textile industry.

Most messages contained standard abbreviations, such as:

e-m87: Pls (please)
e-ml28: p.m. (p.m.)
e-ml80: Info (information)

The use of personalized abbreviations can be illustrated by the following examples:

e-ml69: rgds (regards)
e-m120: thru (through)
e-m189: thnks (thanks)

Some messages contained abbreviations typically associated with the textile industry, as in the following examples:

e-m126: gmt (garment)
e-m146: mts (meters)

Word Omissions and Capitalization

Word omission has been found to be another feature of e-mail messages analyzed, which usually occurs for the first person pronoun in the initial sentence position. Here are some examples from the data:

e-m41: just found out that this will not be sealed until 28/06.
e-m24: will e-mail again tomorrow.

Along with word omission, capitalization was another feature of e-mails. In most messages (62%), low initials were used rather than capitalization, as in the following examples:

e-m11: i keep using this word because this is what generates sales NOT the opinion of someone 3000 km away.
e-m18: last week we planned to load on line 600 doz. (xxx).
e-m91: please make sure our markers are planned the same.

In a study involving a relatively small corpus with 63 business e-mail messages, Gimenez (2000) reports similar findings. Most of the e-mails in her data include use of abbreviations and omissions, illustrating the fact that the style of e-mail messages is largely personalized and informal.

Choice of Lexical Items

The choice of lexical items is another stylistic pattern. In this respect, certain colloquial expressions are frequently used, as illustrated below:

e-m151: on Friday afternoons we go to great lengths to put together accurate cutting requirements.
e-ml49: There is nothing to hold up the cut of the (brand)
e-m151: It is up to you.
e-m139: can you do us an urgent favour.
e-ml11: I can't get my hands on any yet.

In summary, frequent use of abbreviations, word omission, and choice of colloquial expressions are quite prevalent in e-mail messages, and these are features more closely associated with informal, unplanned discourse than with planned formal written discourse. In general, the stylistic features employed by the writers of the commercial e-mail examples appears to be largely consistent and may be characterized as using semi-formal tone of co-operative business correspondence. Evidence here supports the notion that e-mail messages typically combine elements of formal and informal discourse (Rice, 1995).

The Register of E-mail Language

The register employed by the writers of the commercial e-mail examples may be characterized as ranging from using *formal* to *semi-formal* tone of business correspondence, the use of labels allying most closely to Couture's (1986, p. 80) definition of linguistic register. Analysis of the type of language used in the messages reveals that the language of 71.9% of the e-mails was brief and compact, containing simple syntactic structures, which indicates a preference for co-ordinated rather than sub-ordinate ideas, as illustrated in Table 2.

Messages containing simple sentences, often aimed at giving the necessary information, and highlighted the urgency of a work-related issue, only. Sample e-mail messages illustrating short sentences are given below:

e-m81: we are now desperate for the (model).
e-m77: We can't spend our whole day in the audit area.

Table 2. The register of e-mail messages

Types of syntactic structures	Number (%)
Simple syntactic structures	230 (71.8%)
Elaborate syntactic structures	90 (28.2%)

E-mails containing elaborate syntactic structures included long and embedded sentences. Nearly 28.2% of the messages analyzed either comprised co-ordinated ideas or elaborate sentences.

Messages illustrating co-ordinated ideas are:

e-m85: it will be sealed tomorrow and I expect (brand) details by Friday.
e-m5: this keeps our loading in order and does not disrupt the factory.

The following examples illustrate elaborate sentences that are composed to provide more detailed explanation of what was happening in the company.

e-m74: we are repeatedly finding the garments that are not coming off thread free.

In these messages, the first person pronoun is either typed unconventionally in lower-case or omitted from sentence initial position, both of which devices seem to indicate the writer's intent to convey a less formal tone to their messages.

In 52% of the messages, this informality is raised to a more formal level with the occurrence of complex structures. This change in register might be linked to the nature of the content of the message, such as when a mistake has been made, as illustrated in the following sample:

e-m19: Remember that the quality of the garments involves all of us.
e-m11: Please note that both fabrics, especially the blue check, are to be less crinkly than the standards, or to put another way make sure that all the fabric you cut is crinklier than the hangers.

With regard to the presentation of messages, it has been found that in some messages senders observe standard conventions for written business English, correctly punctuating sentences. However, these conventions are breached with the writers' preference to use a rather informal style in most messages.

Paragraphing varied in the samples collected, with some short paragraphs of only two or three lines to blocks of texts of more than ten typed lines. In most cases, where urgency is conveyed, the text is capitalized, as the following examples illustrate:

e-m120: YOU ARE ALREADY TOO LATE!!!!
e-m146: PLS NOTE THAT PRE-PRICE STICKERS SHOULD BE ATTACHED ONTO THE OVERRIDER

In cases where emphasis is important, part of the message is capitalized, as the following example illustrates:

e-m53: We managed to avoid cutting it AT ALL.
e-m58: YOU are holding up cutting and consequently production.

Elliptical and Contracted Forms

Incomplete sentences, which appear in elliptical form, reflect features similar to unplanned spoken discourse (Gimenez, 2000), as illustrated in the sample messages below:

e-m50: two trucks tomorrow morning... good news,
e-ml29: Any questions, please ring/ e-mail

In addition, the use of contractions occurs quite frequently, as the following samples show:

e-m88: I'm still pushing to get them.
e-m97: I'll keep you informed
e-ml39: I'd appreciate

The register of the messages featuring these forms appears to be more informal and personal, which is consistent with the stylistic features displayed by the messages, as illustrated in the preceding section. Findings of the register and stylistic features of the messages are consistent with Gimenez's (2000) study of commercial e-mail messages, and that of Rice (1995). Yet, Gains (1999) reports opposite findings since most of the e-mails in his data was consistent with the standard conventions adopted in formal business communication, with the exception of only a few messages which contained features reflected those in conversational discourse.

In conclusion, two different levels of styles were observed in the register of the messages analyzed in the present study: The first and strongest tendency was towards a more formal language which is achieved by concise and more elaborate language which deals with the subject matter only. The second was the preference to use less formal more everyday language with tendency towards spoken language, paying less attention to formalities like the use of capitalization, contraction and ellipses. Considered in this respect, e-mail messages provide evidence of similarities to spoken unplanned discourse.

RECOMMENDATIONS

By developing a common framework to examine the discourse features of data from one source, this study demonstrated a revealing approach to direct the analysis of future e-mail research. Considering the reasonable size of the data used in this study, it may be concluded that these e-mails contain sufficient substantive features which would be worthy of being considered for analysis and further investigation. Given the importance of e-mail communication, particularly where English functions as ESL/EFL, this study could present insights into the discourse of digital communication, the overall objectives of the handbook, for researchers and professionals working in the field of communication, teachers, course designers and materials producers by offering the following recommendations:

First, findings of this study can help communicators, in general, develop a richer understanding of the ways in which the electronic medium affects functional, stylistic and register choice. It is of vital importance that people working in various organizations be acquainted with various features of the messages, and be equipped with the required skills and knowledge to read, understand and successfully produce appropriate responses, when required.

On the basis of the present results, some recommendations for the teaching of business English can be made regarding the use of electronic mail so that learners of business can be familiarized with the conventions dictated by this electronic discourse.

As an initial point, it is essential to understand the various functional categories conveyed by e-mails. Considering the impact of e-mail message, along with its communication complexities we face in an increasingly technology-driven world, business students will be required to be familiar with functional information conveyed by electronic messages. In course design, as suggested by Louhiala-Salminen (1996, p. 50).

business communication should not be treated as something separate from the real business, not as a store of phrases and idioms, but rather as a thread which is interwoven in everything that happens in business. The thread has no value of its own, independent of the business context.

Thus, teachers need to work with students to analyze functions of e-mail using authentic e-mail messages, to help students understand functional categories and corresponding linguistic patterns.

In addition, becoming familiar with stylistic features and register in business communication is needed. Teachers of commercial English will, thus, need to train students to understand levels of formality and stylistic features such as "ellipses", "co-ordination", and "abbreviation" used in messages, and when the use of these features is appropriate. As suggested by Le Vasan (1995), this approach presents a challenge to the long-established tradition of teaching "formulae writing" to business students. The findings of the study suggest that many business courses need updating, as a basic concept in terms of its structure, organization and language.

The next insight emerging from the present study involves the ability to produce appropriate style in e-mails. Business students need to know not only the functions and conventions of e-mail discourse but also the mechanics of actually composing appropriate response to each functional category. Likewise, international companies can initiate e-mail training programs to ensure that employees understand the levels of formality and stylistic features used in messages, and when the use of these features is appropriate to reduce the chances of messages being misunderstood or not being adequately interpreted. Such programs might assist employees in dealing with messages and ensure that important e-mails are serving their purpose of being accurately interpreted by recipients.

Finally, as e-mail communication has started to affect interpersonal business communication, the changes will have to be supported by new developments in the field of teaching materials. Business course book writers as well as teachers of written communication need to take into account the emerging functional, register and stylistic conventions in business e-mail communication in designing course books and study materials to increase learners' awareness of the effects of e-mail on written communication. Materials need to be produced illustrating different types of register and stylistic features identified in the messages in order to allow the learners hands-on experience so that they can fully experience the effects of e-mail on written communication.

CONCLUSION

This study has examined a corpus of real e-mail messages from several perspectives drawn from an international company in Turkey. The size of the corpus and the relevant analyses of the data helped provide a comprehensive analysis of the discourse of e-mail messages. From the analysis of the functional categories, stylistic and text features of examples drawn from this commercial source, a reasonably clear picture emerges that e-mails are an established form of everyday internal communication within this particular company, and they appear to be used to disseminate information for a variety of work-related purposes, namely to *inform, to request, to direct,* and *to praise*. With regard to the register and stylistic features of the messages, it has been found that the level of formality ranges between formal and informal. The stylistic features of e-mail messages seem to indicate that this electronic discourse reflects, in many respects, the features of spoken discourse.

It has also been found that in this particular company, Turkish textile personnel were not adequately prepared to interpret these messages accurately. Nor were they familiar with the register and stylistic conventions used in the messages. Therefore, identification of the functional categories, register and stylistic features has provided an insight into the specific communication needs of these textile workers. It is hoped that the results of this analysis can assist the teachers of commercial English to better anticipate users' needs and minimize possible problems.

Given the importance of commercial English in Turkey and throughout the world, particularly where English functions as ESL/EFL, it is of vital importance that people working in companies and various organizations be acquainted with various features of the messages, and be equipped with the required skills and knowledge to read, understand and successfully produce appropriate responses, when required, to enable them to meet the challenges of communicating in the Digital Era.

This study included data from only one source in a particular setting in Turkey. Yet, it is believed that companies in many other countries have similar needs. It is, therefore, hoped that the findings emerging from this study will be of value to course designers and teachers working with personnel who need to communicate in a similar international business environment. Clearly, more research should be conducted in other organizations and with other types of employees to allow for more cross-sectional analysis of business e-mail communication. A multiple firm study would improve the generalizability of the phenomena described here.

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KEY TERMS AND DEFINITIONS

Business Community: A group of people working for a company who have commonly agreed goal of contributing to the functioning of the company, and have mechanisms of communication, such as communicating through *e-mail messages*.

Communication Channel: It refers to medium, which is used to convey information from a sender or transmitter to a receiver who is in the receiving end of a communication channel. The receiver decodes information from the sender.

Communication Through E-Mail: The transmission of written information from the sender to a single or multiple recipients through the medium of a computer which uses digital signals to transfer information.

Electronic Mail: Abbreviated as e-mail, it is any method of creating, transmitting, or storing mainly text-based human communication within a system of digital communication.

Functional Analysis: Categorizing the type of information contained in the messages in accordance with the functions each message serves, such as *informative, directive, request* and *praise*.

Register: The use of language which is determined by the degree of formality, ranging from the use of the language from the formal to informal style.

Stylistic Analysis: A systematic counting of textual features such as personal pronouns, contractions, nominalizations, compound nouns in order to identify stylistic features in the textual data.

Chapter 22
Spelling Practices in Text Messaging

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ABSTRACT

The sociolinguistic functions that text messaging plays in Nigeria cannot be over-emphasized. This chapter not only highlights the functions of text messages in Nigeria but also examines the strategies used by students of Obafemi Awolowo University in the composition of text messages. One hundred and thirty-four text messages, either sent or received, by volunteer participants whose ages range between sixteen and twenty-four years, were analyzed. The chapter showed that, although some words are spelt the same way by different texters, there is need to standardize the spelling conventions in SMS so as to make it more systematic and less chaotic. Findings revealed that among the strategies such as clipping, abbreviation, initialization, phonetic spelling is the most commonly used by Nigerian students.

INTRODUCTION

Since the introduction of the Global System for Mobile Communications in the year 2001 in Nigeria, there has been a monumental increase in the ownership of mobile phones in Nigeria. The pioneering provider is the MTN. After the MTN, other providers have since appeared on the Nigeria's telecommunication market, and they include CELTEL, GLO and the latest being ETISALAT. Many more providers are in the process of being licensed. The use of mobile phones is so essential in Nigeria that it is instrumental to the bridging of the communication gap between people in the rural areas and their families, friends and relatives in the urban areas. Unless it is extremely unavoidable, instead of having to go to cities or to villages in order to discuss important issues with family members or friends, the common practice now is to discuss via the mobile phone. Thus, as a matter of necessity, every family in Nigeria tends to have at least a mobile phone while in some families, each member has one. This is not to talk about individuals who have an average of two mobile

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phones each. One of the opportunities which the use of mobile phones offers to most users, especially the relatively young and educated users, is the use of text messaging, which is the focus of this paper. BBC notes that "in September 2007, nearly 5 billion text messages (or SMS, Short Message Service) were sent in Britain, about 4, 000 per second" (Plester, Wood & Joshi, 2009, p. 145) while O'Leary (2006) statistics also reveal that in 2004, 500 billion messages were sent throughout the world. This means that text messaging has become an important tool through which people can communicate both nationally and internationally.

From different parts of the globe, many scholars have studied the form and use of text messages using different approaches. Some scholars have examined the social and psychological effects of SMS (Agbu, 2004; Reid & Reid, 2004), some have also investigated its forms and functions (Taiwo, 2008) while others have looked at it from the sociolinguistic perspective (Thurlow, 2003). There are yet other scholars who treat SMS messages as dialect, register and discourse (Awonusi, 2004; Chiluwa, 2008(a); Sutherland, 2002), some have treated it from the semiotic approach (Shoki & Oni, 2008) while some have examined the pedagogical implications of the use of text messages for the teaching and learning of English in non-native environments (Taiwo, 2004).

In text messaging, texters do employ different techniques not only to achieve brevity but also to enhance clarity while communicating. The mirror through which these techniques become transparent in texting is the spelling convention used and by spelling convention in the context of this paper is meant not only the letters and abbreviations used but also the symbols, emoticons and special fonts which Crystal (2008, p. 37) refers to as logograms. The aim of this paper, therefore, is to examine the spelling practices in text-messaging by some Nigerian undergraduates with a view to assessing the strategies they usually use. The major objective of this work is to examine the strategies used by Nigerian undergraduates in short messaging service (SMS).

Perhaps the question that may come to one's mind is the necessity for this work especially when many scholars have conducted research on different areas of SMS (see Haggan, 2007; Lewis and Fabos, 2000; Ling, 2005; Jacobs, 2004). First of all, this work is an attempt to contribute further to the knowledge of digital discourse and literacy which is relatively new in Nigeria. Secondly, being university teachers, we have observed gradual deterioration in the writing of our students over the years. In formal contexts such as during examinations or while writing term papers to be graded for assessment, our students do make use of all manners of abbreviations as Akinwale and Akande (2001) have reported. Although not yet confirmed in Nigeria, there seems to be some evidence that the use of SMS as it relates to spelling practices has been having impacts on the way these students write in formal contexts. It has been observed in some studies that the spelling practices in text messages are now influencing the school-based writing and some of these studies have also shown the reactions of teachers to this kind of writing (Axtman, 2002; Cobbs, 2002; Lee, 2002).

SOCIOLINGUISTIC FUNCTIONS OF SMS MESSAGES IN NIGERIA

Generally speaking, the use of mobile phones in Nigeria, as noted by Taiwo (2008), 'has created jobs for many young Nigerians as some of them now engage in selling prepaid phone cards or mobile phone accessories" (p. 970). The primary function of SMS has been for communication with friends, peer groups and parents. The function is still evident in the way SMS is used in Nigeria today. Our investigation has shown that students still send text messages to one another in respect of timetable, lecture shift, tests etc. Ellwood-Clayton (2006) points out that in the Philippines where most couples are geographically separated, texting helps in cementing social relationships. Ellwood-Clayton (2006) says "In the Philippines friendship networks are bolstered through recurrent text communication and ultimately act to deepen *platonic love*" (p. 360). This social function is not unique to the Filipinos alone. In Nigeria also where, for economic reasons, many spouses do not live together, social relationships are sustained by texting and voice calls. Through this medium (i.e., texting) many couples who do not even live in the same country can run their homes through texting. While evidence shows that students use text messages for filial purposes, a new dimension of usage has been introduced to SMS. SMS usage has now been extended into formal domains. Mgbemna (2007) remarks that Abia State Polytechnic students use SMS "to communicate formal and informal information; text messaging is used in personal and interpersonal communication" (p. 112). It is now not uncommon for people to receive text messages inviting them for job interviews. The explanation for this is the fact that corporate organizations cannot rely on the Nigeria's Postal System which is epileptic in function. Complaints of delay in arrival of surface mails and disappearance of them are quite common. One of the advantages of SMS is that of instantaneous delivery with, sometimes, automatic confirmation of them. Besides using SMS messages to invite candidates for interviews, financial institutions have started using this medium to link up with their customers. Call Alert is now used in Nigeria by banks. The system involves call placements to customers informing them of lodgments into their bank accounts. Other services carried out through this system include drawing attention to offers for subscriptions into companies.

Also in Nigeria today, the Nigerian version of the global television quiz programme "Who wants to be a millionaire?" reaches millions of its viewers through texting. Audience participation in the programme includes responses via SMS messages. In addition, the South African multinational television company, Digital Satellite Television (DSTV), informs its customers in Nigeria about subscription deadlines via text messages. Taiwo (2008) examines the linguistic forms and functions of SMS in Nigeria and notes that text messages can be used to initiate, up-keep and control relationships as many relationships "are started, built and maintained in Nigeria through this seemingly simple communication medium" (p. 971). Taiwo further observes that SMS messages are used to communicate several kinds of information in Nigeria. According to him, some of these include invitation to a meeting, appreciation, apologies, congratulatory messages, dating and romance as well as well as electioneering campaign (Taiwo, 2008, p. 975). Texting can also be used as a tool for social and political transformation and reformation. Obadare (2006) reports that a mass protest against the perceived exploitation and extortion of mobile phone subscribers was recorded in Nigeria on September 19, 2003. According to him, the protest was engineered through a text message that went round the mobile subscribers. During the protest, the subscribers switched off their mobile phones and the service providers were forced to reduce their tariff rates. Also, as reported by Obadare (2006), President Joseph Estrada in the Philippines was ousted from office in January 2001 through texting that caused people to demonstrate a mass protest. This means that SMS can be used to bring people of different educational, religious and perhaps cultural backgrounds as well as people who have different political persuasions together to fight for a cause affecting them.

Roman (2006) carries out a study in which he examines the use of text messages to spread the Christian faith. He conducts a survey as well as interviews using 482 students (186 male and 296 female) of university of Santo Tomas in Manila. The study demonstrates the need of young Filipinos to relate with other people and that interactions and openness have more positive effects for ministry than sending Biblical and inspirational quotes to young people. In a related study, Chiluwa (2008a) shows that text messages can be used as a tool for constructing Christian values and belief systems.

In spite of these laudable roles, the socio-linguistic functions of SMS will be incomplete without mentioning the impact that its negative application is causing in Nigeria. SMS has been used and is still being used to defraud people. For instance, with the latest development of banking system in Nigeria which enables people to use their ATM cards to withdraw money, many people have received spurious text messages asking them to confirm their ATM pin number. Also, others via text messages have received information that they have been lucky winners of a fantastic sum of money and in order to redeem such, they should deposit a certain amount of money into some bank accounts. Moreover, GSM and texting can be used to scare or threaten people. In Nigeria, many people such as politicians, business tycoons, university dons and some top civil servants have reported receiving death threats through text messages. Agbu (2004) reports that in Nigeria, some people after receiving 'strange' calls, collapsed and died; and their deaths could be linked to the mysterious calls they received. However, given the creative instinct of man, it is envisaged that SMS will be adapted for other communicative needs. For now, it remains "the latest manifestation of the human ability to be linguistically creative and to adapt language to suit the demands of diverse settings" (Crystal, 2008, p. 175).

TEXT MESSAGING AND SPELLING

The emergence of SMS has, no doubt, given birth to a new form of writing, a new language with its own set of orthographic, lexical, phonological and grammatical structures. The evolution of SMS has two major implications for researchers and educators as Carrington (2004) points out in the following words:

The emergence of SMS is noteworthy for literacies educators and researchers for at least two of its characteristics: first, the rapid evolution of a new form of text and accompanying skills; and second, the ways in which this new textual form reflects contemporary social relationships. (p. 217)

The use of short messaging service (SMS), popularly known as text messaging, is very common across the globe among users of mobile telephones. However, SMS seems to be more common among Nigeria's adolescents than among adults. Although there is no empirical evidence yet for this, the use of SMS among the youth in Nigeria and the spelling practices they employ in text messaging seems to be connected with the development of a social group trying to communicate through code and create its own identity. Kasesniemi & Rautianinen (2002), in respect of text messages, say:

[Text-] messages often bear more resemblance to code than to standard language. A text filled with code language expressions is not necessarily accessible to an outsider. The unique writing style provides opportunities for creativity. (p. 183)

The reasons for the ubiquity of SMS are numerous. First of all, users of this service are allowed to deviate from the standard spelling norm. The preponderance of non-standard spelling is most noticeable in text-messaging (Androutsopoulous, 2000). The spelling convention is not only chaotic and multifarious, it could be regarded as a form of rebellion against the school system. Thurlow (2003) investigates the use of text messages among 159 teenagers. After an analysis of 544 text messages collected from these teenagers, he notes that ten types of nonstandard spelling forms are employed by these subjects. Some of these are shortenings as in *bro* for *brother*, contractions as in *gd* for *good*, G-clipping as in *goin* for *going,* number homophones as in *4* for *for,* misspellings as in *rember* for *remember* and accent stylization as in *doya* for *do you*. Bush (2005) also uses five internet text messaging "dictionaries" and identifies nine linguistic devices that texters often use. These devices include abbreviation (e.g., *b* for *be*), dropping vowels (e.g., *lnch* for *lunch*), acronyms (e.g., *yw* for *you are welcome*), contraction (e.g., *bday* for *birthday*) and abbreviated phrase (e.g., *gudnite* for *good night*). Youngsters often use the chaotic spelling, as pointed out above, as a rebellion against the standard imposed on them by the school system. However, within this rebellious and chaotic spelling lies common strategies, most of which are morphological, used by texters across the globe. As far as we know, not many scholars have investigated these strategies with reference to Nigerian texters.

Texters also use non-standard spelling in SMS for economic reasons. SMS is cheaper and cost effective than voice calling (Chiluwa, 2008(b); Crystal, 2006). Crystal (2006), concerning texting, says that it is "a cheaper medium than conventional voice calling, and a more private medium, in that users can communicate without their conversation aurally disturbing other people they happen to be with" (p. 262). Jacobs (2004) summarizes the advantages of instant messaging generally as follows:

> *In instant messaging, a form of computer-mediated communication, people use text to converse with one another in real time. Instant messaging is private, one-to-one conversation, although a user may have more than one conversation going on at a time. As well as transmitting short, alphabetically based messages, instant messaging software allows for the inclusion of graphical emoticons, the use of a variety of fonts and colors, and links to websites, music files and graphic files.* (p. 396-397)

Ling & Yttri (2002) point out that texting tends to be more crucial in building and managing social relationships. Also, it allows users to display their identities through the use of certain non-standard spelling and symbols that can only be decoded by users who belong to the same in-group. This is so because text messages often contain coded expressions which might be difficult to access by an outsider (see Kasesniemi & Rautianinen, 2002). Carrington's (2004) view also aligned with the above position. She notes that, squeeze-text which she used to refer to the strategy used in shortening texts to minimum syllable length 'usually with the removal of vowels' (p. 217), is a form of discourse as it has to do with a kind of communication that occurs among members of the same social group and since this communication is 'about identity and self-expression, and about exerting power and influence in particular fields' (p. 219).

This study is similar to some earlier studies on SMS messages in Nigeria (e.g. Chiluwa, 2008b) in that we also focus on certain linguistic features in the text messages sent or received by some Nigerian students. It is however different from Chiluwa (2008a) in that the aim of the present study has nothing to do with any religious contexts or values in Nigeria. Also, while Obadare (2006) examines the use of GSM and text messages as a socio-political instrument and Agbu (2004) dwells on the psychological implications of "Killer Calls" scare in Nigeria, this study is purely a linguistic-based research in that the attention here is on spellings and how spellings in Nigeria SMS messages are similar to those reported by scholars in other parts of the world (Bush, 2005; Thurlow, 2003).

METHODOLOGY

The source of data for this study consisted of 134 text messages collected from 79 undergraduates at Obafemi Awolowo University in Nigeria. The text messages were collected between June and August, 2008 from only those who volunteered to part with the texts in their mobile phones and

Table 1. Number of subjects by faculties

Arts		Education		Social Science		Total
M	F	M	F	M	F	
21	13	14	11	12	8	79

they were assured of anonymity. Out of these 79 students, 47 were male while 32 were female. The male students were apparently more willing to participate in the study probably because of the fact that we are male researchers. The students' age ranges were between sixteen and twenty four years although the majority of texts were sent or received by those who were under 19 as at the time the data were collected. The subjects who participated in the study were from three faculties as shown in Table 1.

The 117 messages discarded were those that were either written without any form of non-standard spelling or those that were written throughout in one indigenous language or the other. Here are two examples of such messages:

Text 1: Dear, I am going to Lagos tomorrow. What do you want me to get for you? Can I also tell your mother that you will come next week? Love you.

Text 2: Nibo lo wa? Mo fe ka rira toripe mo ni lati lo si ibeyen lola. (Where are you? I need to see you because I have to go to that place tomorrow).

The texters were of two major ethnic and religious backgrounds as many of them were Yoruba and Igbos as well as Christians and Muslims.

Initially, we excluded text messages in which the texters codeswitched from English to either their indigenous language or to Nigerian Pidgin English. Here are examples of such messages:

Pls dnt talk 2 those bys in a hash way ki iya won ma ro pe tori pe baba ko si laye mo (Yoruba) jst tel dm dt ur enemy salr has bn stpd at hm dt we a mangn dt u wl try. (Text 115 in Appendix I)

The underlined part of the example above is in Yoruba language and it means "so that their mother would not think that it is because Father is no longer alive". However, because the text messages in which the texters codeswitched are very few, we later decided to use them since it is evident that there are non-standard English spellings in them. The 134 text messages were analysed and the majority of these messages were exchanged between lovers (see Appendix 1). I present below the breakdown of the text messages.

DATA ANALYSIS AND DISCUSSION

Out of the 134 text messages analyzed, 1265 instances of shortening devices were used (Table 2). The average length of every text message is about 30 words while there is an average of 9 instances of shortening devices in each message. We observe that most of the messages are brief and succinct. The brevity and succinctness of the messages are, as will be shown later, achieved mainly through certain word formation processes like phonetic spelling, clipping and abbreviation.

Although six main types of devices were used in the texts under study, only three of these devices (phonetic spelling, clipping and abbreviation) were predominant; accounting for 93.7% of the total number of occurrences of all the devices. The most frequently used of all the devices is phonetic spelling (59.2%) while the least used are symbol (2.5%) and acronymy which accounts for less than 1% (Table 3). About 33.7% of the 3753 words in the messages were shortened one way or the other.

Table 2. Overview of the analysis of text messages

Number of words	3753
Average number of words per each message	28
Number of text messages	134
Total number of occurrences of shortening devices in the messages	1265
Average number of occurrences of shortening devices per each message	9

Table 3. Types and frequency of shortening devices used

S/N	Types of devices used	Frequency
1	Phonetic spelling	749 (59.2%)
2	Abbreviation	289 (22.8%)
3	Clipping	147 (11.6%)
4	Letter 'g' deletion	44 (3.5%)
5	Symbol	31 (2.5%)
6	Acronym	5 (0.4%)
TOTAL		1265

This is quite a high percentage. However, since almost all the messages are personal and informal, it is not a surprise that the texts are replete with coded expressions, contractions or clippings and abbreviations. The heavy reliance on abbreviation, clipping, homophones and the use of symbols and codes not only make the texters express themselves very clearly but also enable them not to go beyond the required number of characters per message, which is usually 160. The finding here confirms Chiluwa's (2008b) view that "text message spelling conventions such as 2 for 'to' or 'too', 4 for 'for', & for 'and' etc are very common in social and personal text messages" (p. 53).

Uniformity and Variation in Spellings

While some of the words were spelled in the same way by all the texters, some were spelled differently. For instance, each of the words *through,*

Table 4. Words with uniform spellings in their text messages

Words	Shortened Forms	Frequency
Through	2ru	6
What	Wat	10
Happy	Hapi	7
Heart	Hrt	17
Please	Pls	16
Think	Tink	5
Things	Tins	4
Never	Neva	13
Dream	Drm	4
Examination	Exam	7

what, happy, *heart, please, think, things* and *never* was spelled in exactly the same way throughout (Table 4).

Table 4 shows some of the words that have uniform spelling in the data. As an illustration, *through* was spelled as *2ru* (6 times) throughout, *please* appeared as *pls* 16 times while the word *never* was spelled as *neva* (13 times) throughout. None of these words had an alternative spelling in our data in spite of the fact that the data was collected from a range of people who do not even know one another. Although this is not enough evidence yet, it seems that with respect to some words a kind of uniformity is emerging in the texting system of Nigerian students.

As pointed out above, there is a variation in the way some of the words were spelled. This variation occurred in two major ways: (a) words which appeared in both full forms and shortened forms and (b) words which did not appear in full forms at all but had two or more shortened forms. Examples of the former are *when, to, better, best, not* etc. Our attention is, however, on the latter in this section as illustrated in Table 5.

Each of the eight words in the table above (Table 5) is a variable which has at least two variants. The variable (NIGHT) has *nite* and *9t* as its variants while (BECAUSE) has three variants namely *bcos*, *cos* and *cause*. The occurrence of different variants implies that two variants of the same variable do not necessarily have to belong to the same morphological process. For instance, while *4rm* instances phonetic spelling, *frm* illustrates abbreviation. This will be discussed in detail in the section that follows.

Shortening Devices in Texting

In this section, we concentrate on a descriptive analysis of the devices used by our texters. The majority of the devices involve certain morphological processes. To do this, we draw examples from our data in order to show the linguistic features used. As we will show, there could sometimes be an overlap in the categorization of devices.

Phonetic spelling is the major device used in this work as it accounts for 59.2% of the total examples of shortening devices used. For the purpose of this work, we divide phonetic spellings into three namely: purely phonetic spellings, letter homophones and number homophones. Each of these is discussed below.

(a) Purely Phonetic Spellings

Many examples of instances of purely phonetic spellings abound in our data. As examples 1 to 4 below show, some of the examples are *wen* for *when*, *u* for *you*, *luv* for *love*, *tink* for *think*, *odas* for *others*, *hapi* for *happy*, *nite* for *night* etc as in:

Table 5. Variation in the spelling of some words in the texts

Variable	Shortened form 1	No of occurrence	Shortened form 2	No of occurrence	Shortened form 3	No of occurrence
(NIGHT)	Nite	6	9t	1	-	-
(FROM)	4rm	11	Frm	5	-	-
(THAT)	Dt	8	Dat	18	-	-
(TOGETHER)	2geda	2	2gether	1	-	-
(KNOW)	Kn	2	Kno	1	-	-
(AND)	N	13	&	28	en	2
(THANKS)	tanx	4	Tanks	2	10q	1
(BECAUSE)	bcos	5	Cos	6	cause	1

1. Life ends *wen* u stop drmin, hope ends *wen* u sleep believing and *luv* ends *wen* u stop caring. So drm hope & *luv* life is beautiful. *Luv* u 4 I always do (Text 74).
2. Heaven is lifting u up abv ur equals, putin smile on ur cheeks and makin way 4 u where u least expected dis moni. *Hapi* Sunday my *luv* & ur family (Text 52).
3. Last *nite* I caught some stars I'll give them 2 u so u'll know how sparkin special u re 2 me xxxxxxx catch it, it's 4 u. Gud *nite* (Text 62).
4. Some friends are worth to be dumped, *odas* re to be kept as a treasure. I tink I shd dump u, hmmm? In a treasure box to be kept 4eva (Text 21).

The items in bold font in 1 to 4 are, to a large extent, spelled as they were pronounced. Apart from the fact that such phonetic spellings help to reduce the mismatch between orthography and pronunciation, it helps the texters to achieve economy of letters: they used less letters than they would normally have used. For instance, in Standard English orthography, each of *when* and *others* has four and six letters respectively but by writing them as *wen* and *odas*, the texters have reduced them to *three* and *four* letters respectively. Other phonetic spellings in the data include *gud* for *good*, *takia* for *take care*, *kiafu* for *careful* and *elp* for *help*.

(b) Letter Homophone

There is letter homophone when a word which consists of two or more letters is represented by a single letter. Letter homophones are grouped under phonetic spellings because the letters used are usually similar to how the texters would pronounce the words. Examples of letter homophones are numerous in our data as the following examples illustrate.

5. Thank so much for ur msg. Hope ur trip was not too stressful? Anyway, I wish *u* all *d* best in life (Text 16).
6. How re *u* feeling dis moni. *C u* later (Text 12).

The three letters that were used as letter homophones in our data are *u* for 'you', *d* for 'the', and *c* for 'see'. Of all the letter homophones, and indeed of all examples of shortenings, *u* is the most frequent appearing 205 times in our data (Appendix I).

(c) Number Homophones

As in letter homophones where letters are used to stand for words, numbers and figures are used to represent words in SMS. The number used in number homophones always sound similar to the pronunciation of the words that they represent; and it is in this sense that number homophones are regarded as phonetic spellings. Here are some examples to showcase this device.

7. I neva knew u were so special until I saw God's plan book *4* dis month, dre ur name was marked not *2* be put *2* shame but *2* be honored & highly favoured. Peace! (Text 27).
8. As u go *4* ur exam, spirit of God will bring *2* ur remembrance all wat u ve read, u will put in little and ve gud success, favour will always speak *4* u. Go n break dt record (Text 30).
9. *36* angels left heaven *4* ur sake dis day. *12* re prayin *4* God's favour upon u, *12* prayin *4* break2ru & the last *12* re *4* victory. Happy birthday (Text 70).
10. Dia is a elp 4rm God for xcelnz, dia is an ability of d sprit xploits, dia is a divingrac in xams, al dis sha be urs *4* His grac is suvcient *4* u. PCE & JOY (Text 91).

In examples 7, 8 and 10, the number 4 stands for the word *for* while 2 represents *to* in examples

7 and 8. Similarly, the words *thirty-six* and *twelve* which consist of nine and six letters respectively were spelled as 36 and 12. Through the use of these figures, the texter in example 9 has achieved economy of space. Number homophones with the highest frequency in our data are *4* for *for* and *2* for *to* as they occur 42 and 58 times respectively. The homophone *12* appears three times while *36* occurs only once.

There are other examples of phonetic spellings in which both numbers and letters were used to represent words as the following indicate.

11. Evry time God passes *2ru* place, He leave behind a trail of testimonies. May he pass *2ru* ur life dis day n ur life start bearing gud fruits as a proof for u (Text 20).
12. A gud msg, 4 a gud person, *4rm* a gud friend, a gud time, on a gud day, in a gud mood, just 2 wish u. Sweet drms as u sleep *2nite.* Misin u (Text 37).
13. Some friends re worth to be dumped, odas re to be kept as a treasure. I tink I shd dump u, hmmm? In a treasure box to be kept *4eva* (Text 21).
14. Space sims lk an mpty word, but it's ful of specia ppu around, caring ndlessly, *10ks* 4 bn a part of my space (Text 89).
15. *9ice* 2 know dat u came ystdy. Mo lo si ile ni. I go com c u *2moro*. Luv u (Text 118).

As evident in examples 11 to 15, texters often make use of a combination of devices to reduce the number of characters they would use. For instance, *through* is written as *2ru* in 11 while *from* and *forever* are represented as *4rm* and *4eva* in examples 12 and 13 respectively. It could be argued that in the formation of both *2nite* in example 12 and *4eva* in example 13, the texters employed the device of number homophones in the first syllable of each of these words and combined it with purely phonetic spelling in the last syllable(s) of the words. As evident in example 15, the texter codeswitched from English to Yoruba; and then to Nigerian Pidgin English (NPE). The second sentence in the example which is *Mo lo si ile ni* means *I went home* while the sentence that follows it *I go com c u 2moro* is in NPE and it means *I will come and see you tomorrow*.

Texters do make use of a lot of abbreviations, deletions and clippings. These devices are not only economically motivated but they also help adolescents most of whom are involved in texting to code their message and also to create for themselves some kind of identity. In our data, we have the following examples as illustrations:

16. Hi dia! Hope u re *enjoyin* ur *wkend*? *Pls* did I give u any 603 pass question. *Pls* check! Its not mine & owner wants it (Text 9).
17. Foluso am so sorry 4 *nt comin* back as promised. I was so busy. *Wld* u still be in the library by 5.30pm? I *shld* be 2ru then *pls cal* me when u *wld* be available Tanx (Text 5).
18. Hi Bayo, I got ur text. Hope u re beta now. I was not *feelin* fine 2ru out last week too but beta now. *Wishin* u a quick recovery. *Swt drms* (Text 13).
19. Like a sheperd, God will I tend u, He will gather u in his arm & carry u close to his *hrt*. He will gently lead u 2ru dis new *mnth* u re starting 2day & beyond (Text 28).
20. Hey Ire, I *dropd sme* oflines 4 u *ystdy*. I *tld* miss 2 *snd* 4k 2 u *lst wk*. hop u *gt* it? U mit wanna b kiafu *abt* d sits u *vsit* on net! *Tk* kia *f* u buddy (Text 95).
21. I wish u safe trip, *flsh* me wen u *gt* 2 Ife, my *rgrds* 2 Tope (Text 122).

In the above examples (examples 16 to 21), a lot of abbreviations, deletions and clippings were used by our subjects. The abbreviations and deletions manifest in different forms. For instance, many abbreviations involve the deletion of vowels as in *nt* for *not*, *shld* for *should*, *swt* for *sweet*, *drms* for *dreams*, *hrt* for *heart*, *mnth* for *month*, *ystdy* for *yesterday*, *tld* for *told*, *snd* for *send*, *abt* for *about*, *flsh* for *flash* and *rgrds* for *regards*. Another type of deletion common in the data is one in which only the final letter of a word is deleted. In most cases, this final letter is letter 'g'. For example, *enjoying*, *coming* and *wishing* were written as *enjoyin, comin* and *wishin* respectively in the examples above. This is what has been referred to in the literature as g-clipping (Thurlow, 2003; Thurlow & Poff, 2009).

In addition to these devices, some symbols were used to represent words in the data collected. The graphic usage in text messaging is always more effective in that it can be used as an emotional arouser. The most prominent symbol used in our data are & which stands for *and*, xxxxxxx which appears only once and in the context in which it occurs, it means *kiss* while @ as used in the data generally and in example 25 stands for *at*. These are some of the text messages in which these symbols occur:

22. Goin 2 bed at nite is a game of life *&* death. One may wake up *&* one may not, whoever wake up is a winner. I am glad u ve won too. Gud moni my luv (Text 64).
23. Last nite I caught some stars I'll give them 2 u so u'll now how sparkin u re 2 me *xxxxxxx* catch it. It's 4 u. Gud nite (Text 62).
25. Wassup Dude? Got ur offline somtyms ago. I initiatd a process 4 u @ univ of westminstr. Wt's ur CGPA? U can nw txt me on dis no Go 2 café *&* chk oda dtails (Text 97).

The last device which we would like to mention here is initialization or acronymy as instanced in the following examples:

26. Loneliness kills faster than *AIDS*, get worse wen u re missin not just anybody but someone so klos 2 ur hrt. Am really missin u and u don't know much I luv u (Text 75).
27. Wassup Dude? Got ur offline somtyms ago. I initiatd a process 4 u @ univ of westminstr. Wt's ur *CGPA*? U can nw txt me on dis no Go 2 café & chk oda dtails (Text 97).
28. Uncle dis is d name on my national *ID* card OYEGOKE VICTORIA OLUWARANTI. Uncle u can use *PHB* New Bussa (Text 110).

The acronym *AIDS* in example 26 is the shortened form of *Acquired Immuned Deficiency Syndrome*, *CGPA* stands for *Cumulative Grade Point Average* while *ID* stands for *Identity*. Other forms of spellings found in the data are those that could be termed as colloquial Americanized spellings such as *wanna* for *want to* in text message numbers 95 and 98 and *gurls* for *girls* in text message number 121 (Appendix I).

IMPLICATIONS OF TEXT MESSAGING IN ESL SETTING

The preponderant usage of SMS has many implications in ESL environments. Since it has been observed that there seems to be a link between the use of SMS and the deterioration in the writing of our students, there is need to start teaching them the skills and conventions of SMS. And the teaching of these conventions should not be restricted to universities alone; right from primary school, pupils should begin to learn the art of text messaging. The reason for this is simple. Up till now, there is no uniform spelling conventions in text messaging. In fact, people use different spelling and graphic forms which could lead to misunderstanding, ambiguity and vagueness. The sociolinguistic reality of SMS is that it will continue to be used not only for personal purposes but also for official purposes. A few weeks ago, the executive of Academic Staff Union of Universities in Nigeria were summoned to a meeting by the Minister of Education through text messages. Given these roles, therefore, there is need to standardize the spelling conventions in text SMS. One of the ways through which this standardization could be achieved is by teaching texting skills in our schools. In this respect, academics, book writers and researchers should focus on the integration of topics that have to do with the grammar, spelling as well as the phonology of SMS. Presently in Nigeria today, we cannot think of any English textbooks that pay attention to digital discourse with special attention on the language of SMS or that of the internet. Meeting the needs of learners is a crucial aspect of the success of the learning process. Thus, to meet the language needs of Nigeria students who use SMS a lot, a critical review of our English textbooks is necessary. All of these also have effects on curriculum planners and policy makers. It is not enough to incorporate SMS-related topics in textbooks, it is equally important for curriculum planners to ensure that the English syllabus in both the primary and secondary school systems includes topics related to texting.

CONCLUSION

The study focuses on spelling practices in text messaging. The devices adopted in text messaging have been categorized into phonetic spelling, abbreviation, clipping, symbolism and initialization. Our findings show that phonetic spelling or homophones is the major strategy being employed by Nigerian university students generally. The ratio of phonetic spelling to the total number of all the strategies suggests some phonological awareness on the part of these students which is in consonance with Plester et al (2009). In addition, the texters demonstrated a good knowledge of English morphological processes as morphological devices such as abbreviation, clipping, initialization were used. The data further revealed that the processes used by Nigerian students' in texting were similar to those that have been reported in the literature on text messaging (Bush, 2005; Crystal, 2008; Thurlow, 2003; Thurlow & Poff, 2009). While codeswitching is not the focus of this study, we observed that Nigerian students do codeswitch in text messages and when they do, they still make use of shortening devices. The paper concludes that there is need to introduce SMS-related topics into Nigeria's school syllabus just as it is necessary for writers and researchers to incorporate same into their textbooks.

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KEY TERMS AND DEFINITIONS

ESL Settings (English as a Second Language): This refers to places or countries where English is being used officially as a second language. Members of these settings are predominantly non-native speakers of English. The countries where English is used as a second language are usually former colonies of the United Kingdom.

GSM: The acronym GSM is a digital technology which stands for Global System for Mobile Communication. It is a wireless means of interaction through voice calls used for national and international communication.

Homophones: In the context of this study, homophone is synonymous with phonetic spelling. It also refers to writing down a word as it is pronounced. For instance, when *therefore* is written as *dia4*, we have an instance of homophone.

Phonetic Spelling: Phonetic spelling is simply the act of writing a word down as it is pronounced. In phonetic spelling, a figure or a symbol may be used to represent a whole word or a part of it. This technique functions generally as a time and space-saving device.

SMS: This acronym stands for Short Messaging Service. It exists on GSM and enables GSM users to send short written messages to other mobile users. The characters used are not usually more than 160 and the implication of this limitation is that SMS users often resort to the use of shortening devices such as abbreviation, clipping, phonetic spelling and so on.

Sociolinguistic Function: By sociolinguistic function is meant the role played by a particular form of language within a speech community. In this study, we use the term to mean the formal/informal interactions and roles carried out through the use of text messages.

Standardization: Standardization helps to make for conformity to some generally agreed methods and norms of application or usage. It serves a regulatory function, thereby reducing variation in language use.

Chapter 23
Hyperjournalism for the Hyperreader

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ABSTRACT

The internet has created numerous new text types. This development has not left the field of journalistic publications unaffected. The following chapter takes a close look at the so-called webzine. Other than online presences of established magazines, webzines have no counterpart. Characteristically, they are situated between being a purely journalistic publication and offering their users opportunities for online communication. The chapter analyzes this position by using representative webzines concerned with the non-mainstream music style of heavy metal. The findings, however, are also relevant to webzines dedicated to other topics. In the course of this chapter the influence of digital hypertext structures will be illustrated as well as the alternative text producer and recipient roles which are directly affected by the inherent interactivity of webzines. The chapter closes with an outlook on future journalistic publications on the WWW.

INTRODUCTION

The internet has produced a myriad of new forms of communication that challenge traditional views and ideas of communication. Exponents of CMC (computer-mediated communication) such as online forums and chat have become increasingly popular. Blogs and self-made video clips on Youtube compete with traditional journalistic products as opinion makers. Journalistic products — no matter whether newspapers, magazines or TV programs — are no idle bystanders but maintain their own online presences.

However, the internet has also created journalistic publications that have no analogous precedent: the webzines. These make use of digital hypertext features both for navigational and content-related

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purposes, offer hypermedia items and rely heavily on communicational components. These are used to ensure contact between the webzine's producers as well as to provide an online community for the webzine's readers. Vital in this connection is the fact that the main aim of every website, be it music webzine, another online magazine or a newspaper online presence, is to generate most traffic, i.e. web hits (which are crucial regarding advertising). Interactivity and recipient participation are crucial to achieve this desired popularity (see e.g. Sundar, 2007). Thus the readers become an active part and influence the text producers and the webzine's content, as I will discuss.

The chapter takes a text linguistically inspired look at such webzines and the way in which hypertext principles are employed by these journalistic publications. In the process, Storrer's (1999) terminology of e-text, hypertext and hypertext net is considered as well as research on hyperlinks (Huber, 2003). Furthermore, the influence of the readers on the text producers is illustrated by referencing typical music-related webzines that offer instruments of CMC to their readers.

BACKGROUND

It is not only the new forms of CMC on the WWW (such as instant relay chat or online forums) that have sparked the interest of linguistic researchers (e.g. Dürscheid, 2002, 2003; Jucker, 2002, 2003). Their research focus also includes alternative texts that have an informative function and serve a journalistic purpose. The most prominent example of these are blogs. Although not all blogs focus on general news-related issues (see Herring 2004 for an analysis of different blog types), they are a popular addition to newspaper sites where they are a frequently-updated column (see for example www.cnn.com or also www.dagensnyheter.se, which both host different blogs). Crucial research regarding weblogs comes from Susan C. Herring (e.g. 2009, 2005). She defines weblogs as a genre (2005, p. 2) since they share structural and functional characteristics. Although the term *genre* is widely used and also applied in the field of art, it is generally used in English linguistics to refer to the new text types the internet has created. Besides its focus on the functional aspect, *genre* can also be preferred over the term *text type*, as the frequent use of hypertext structures in these young communicational forms raises the question of whether they are still text types and not hypertext types instead. Hence, webzines can also be considered a particular genre of the online world, which does not have an analogous predecessor and which combines journalistic (hyper)texts and CMC. Furthermore, webzines alter the roles of text producer and text recipient due to this unique combination, and offer new possibilities to their readers.

Webzines have been analyzed in German linguistics by Androutsopoulos (2005) among others. Given Androutsopoulous' research background, i.e. youth language and youth-related publications such as fanzines and flyers, Androutsopoulos connects the nature of webzines to some of his earlier findings regarding fanzines (i.e. self-published magazines dedicated to e.g. a non-mainstream style of music, for example). He draws a distinction between professionalized *online magazines* that include commercial advertisements and have a consistent team of journalists working for them (see also Eisner, 2000, p. 81) and *e-zines*, whose characteristics are more rooted in the print equivalent of the fanzines. Often, however, these distinctions are not as clear-cut. This is due to the fact that online magazines exist which began as e-zines and later professionalized themselves, though typically their content authors cannot support themselves professionally from this writing alone (as seen in the case of the music webzines www.vampster.com or www.metal-rules.com). Due to the fact that these (semi)professional webzines have clearly changed the face of online journalism and have become an equivalent to online presences of established newspapers and print magazines, the focus of this chapter lies with them instead of on the much more niche-like *e-zines*.

As mentioned before, webzines make use of hypertext structures. The concept of hypertext is used in different fields and many definitions of both its linguistic and computer science-related use exist. Foltz' (1996, p. 109) definition aptly summarizes the nature of digital hypertexts:

Text is typically presented in a linear form, in which there is a single way to progress through the text, starting at the beginning and reading to the end. However, in hypertext, information can be represented in a semantic network in which multiple related sections of the text are connected to each other. A user may then browse through the sections of the text, jumping from one text section to another. This permits a reader to choose a path through the text that will be most relevant to own interests.

There is an ambiguity in the fact that a user must be capable of browsing a hypertext. Naturally, this is only possible with digital hypertexts read with the help of a browser program. However, there are also printed hypertexts. Jucker (2002, p. 29) names "newspapers, encyclopedias, scientific articles" as examples, since they also allow their readers a freely chosen reading path along offered nodes. Other than printed hypertexts, digital hypertexts in the World Wide Web profit from the nearly unlimited reading paths the web offers. While a printed newspaper has its boundaries, a webzine linking its articles to other content in the WWW offers its reader a whole new dimension of a semantic network. Furthermore, the digital hypertexts can be enhanced with hypermedia structures (by linking to or embedding graphic, audio or video material, for example) that are unavailable in the print medium.

Yet not all textual content in the journalistic world of the web is hypertext. Not every text offers links to different content and so Storrer's distinction (1999) between e-texts, hypertexts and hypertext nets offers additional insights when analyzing journalistic publications in the World Wide Web. Jucker summarizes her approach aptly (2002, p. 31):

She distinguishes between "hypertexts", "hypertext nets" and "e-texts". She defines a hypertext as a text with a non-linear organization that is managed by a hypertext system and has a recognizable text function. (...) A "hypertext net" combines several hypertexts and e-texts. In this sense the world wide web is a global hypertext net. The constitutive elements of hypertexts are, according to Storrer, "e-texts," that is to say electronic texts with a linear organization [sic] that are integrated into a hypertext.

Hence, not every e-text is also a hypertext, with links that allow the reader to choose a non-linear reading path. An e-text could be any text that has been transferred from printed text to text that can be read on the computer – be it as part of a website or on a CD-ROM. Nevertheless, an e-text may be part of a hypertext, as Storrer and Jucker point out. However, one hypertext can also be part of another hypertext. Hence, the question is when the existence of a hypertext net starts, i.e. how many hypertexts and e-texts are necessary to declare the entity in question a hypertext net? Regarding online magazines, the answer can very well be that an online magazine is such a hypertext net as it serves as a journalistic umbrella of different hypertexts and e-texts. At the same time, it includes CMC choices for its readers and has no printed predecessor, which makes it reasonable to see it as a genre according to Herring's holistic view explicated above.

Hyperlinks are naturally a crucial component of hypertexts. Even if not all the content of an online magazine consists of hypertexts, links are still present. Huber (2002) distinguishes between navigational and content-related links. Navigational links are always present in online magazines, sometimes positioned in frames around the (hyper)text a recipient is reading, they help the user to quickly maneuver to another subsection of the publication or return to the opening page, for example. These navigational hyperlinks are usually grouped together in a separate frame or clearly marked by a different font, color or underlining. Hence, an e-text in a webzine may be surrounded by a hypertext frame with hyperlinks. These enable the user to browse through the other parts of the online magazine as a whole. Other navigational links may lead to the CMC choices (such as a reader forum) of the online magazine or give the user the possibility to contact the author of the article directly via e-mail.

Content-related links, on the other hand, are embedded in the hypertext and lead to semantically related articles. Such links cannot be found in e-texts. They are a distinctive attribute of digital hypertexts and enable the reader to change the reading path in the middle of an article, to begin reading an article by another author, for example. These semantic links may also be marked by a distinctive font, color or underlining as the user should be able to notice immediately where gateways to other content are located. Furthermore, these semantic links may lead to hypermedia content. Oftentimes, they lead to other, not directly-related websites (or portals) such as Youtube.com and are not limited to linking an article to other articles of the same online magazine. Links to hypermedia content or outside websites are usually explicitly introduced in the article so the user is prepared to leave the webzine by clicking on this specific link. The naming of the link by deicitic expressions such as "here" is also fairly common. This makes the corresponding introduction all the more important in order not to semantically confuse the user. After all, the user must have the feeling of control over all reading choices and the user's feeling of being lost in hyperspace is one that producers of webzines particularly seek to avoid.

WHEN ONLINE JOURNALISM MEETS CMC ISSUES, CONTROVERSIES, PROBLEMS

As stated before, webzines are a fairly young genre on the World Wide Web. They differ from printed journalistic magazine publications in several ways. The sheer number of digital hypertexts plays a large role with regard to these differences. As such, the problems when researching digital hypertexts also occur when analyzing textual content of online magazines.

First of all, seclusiveness is an issue. Adamzik (2004, p. 45) points out seclusiveness as a text criterion. Given the fact that a hypertext in an online magazine may be a gateway to the World Wide Web, Jucker's (2000) notion of a global hypertext becomes very real. However, when researching online magazine content, it is impossible to follow every possible path a reader may take, since the World Wide Web defies seclusiveness as such. Hence the question arises: Where does it make sense to set the boundaries of a researched hypertext in such a webzine's environment? Naturally, this question does not arise in digital hypertexts that are part of a seclusive CD-ROM without any links into the World Wide Web. In the case of the online magazines, however, it does, since they are an intrinsic part of the World Wide Web and its uncountable possibilities. As hyperlinks are the respective gateways, they cannot be ignored when analyzing webzine content.

However, there are yet more complex issues. These methodological problems are mainly due to the ephemeral nature of hypertexts. An article may be deleted after publication; a webzine's online presence may disappear due to a technical glitch or the financial problems of its creators. Furthermore, articles can be altered after publication. This is a quality that only e-texts and hypertexts possess since published texts in the print medium cannot be changed after publication. This ability to be changed after publication reminds one of the dystopia depicted by George Orwell's 1984, whose protagonist Winston Smith works in the so-called Ministry Of Truth: his main task is to change newspaper articles after their publication in order to bring them into accordance with the current political situation. Even when such thoughts of conspiracy and intrigue are not considered, the issue of online texts not being fixed, in their online form, still remains.

Naturally, this also affects the analysis of journalistic texts on the World Wide Web. After all, these (hyper)texts may also be changed due to reader feedback. In the world of printed journalistic publications, reader feedback usually consisted of a letter to the editor. This letter can be published by the magazine (for example) or not. The choice to publish it lies with the magazine's creator and cannot be witnessed by other readers. In case of publication, the article in question cannot be changed due to the print medium. In the case of the online magazine, the case is a different one. With the help of CMC instruments such as the webzine's own online forum, readers can respond to articles, and discuss them among themselves or with the original writer. The popularity of CMC instruments is supported by Sundar's (2007, p. 89) claim regarding interactivity and the thereby enabled bonding between recipients and a specific website: "Interactivity is arguably the single most important feature that distinguishes mass communication via the Web from traditional mass media. (…) They (humans) tend to form long-term affiliations with particular computer terminals, showing anthropomorphic loyalty toward specific terminals (…)". These observations also hold true for the websites of news media such as CNN.com. CNN.com does not only offer interactive polls for their readers ("quick vote"), but also the section "IReport" which has the motto "Unedited.Unfiltered.News.". This further supports the argument of high reader influence. The comment function which is used in music webzines, webzines and mass media news sites such as heise.de or 20min.ch is also such an interactivity feature that supports the claim of reader influence and popular community building.

In some cases, readers also convince the writer to change the original article after publication. Hence, one cannot analyze webzine content without taking into account the readers' virtual community. Webzines actively motivate such community features and it is not unusual that readers enhance an already-published article with their own added links. The readers' influence can utter itself in different ways, as the three following examples depict. First, it can be directed at the correction of mistakes. On November 12th, 2007, vampster.com-writer Daniel Orth writes a review about the album "Eleven Sins" by the Swiss band *Shadow`s Far*. He calls the band *Shadow`s Fear* by mistake. A reader contacts him via the comment function and tells him the correct band name. On November 13th, 2007, the article is published again in its corrected form. Such a complete new publication would not be possible in a print magazine. Secondly, the participation of readers can influence the writing of articles before they are even published. The German music webzine metal.de openly asks its readers to submit interview questions for bands via its public forum (where a whole subforum is dedicated solely to this purpose). These questions are not only commented on by the webzine's writers in the forum, some are also used in the interviews. An example is the interview with the Greek band *Rotting Christ* of March 22nd, 2009, where a question regarding missing songs on a DVD has been directly adapted from a reader's response in the public forum. The author of the interview, Endres, had actively participated in the pre-interview forum discussion and encouraged readers to submit questions. However, reader participation does not stop at the music webzine's doorstep. Due to the aforementioned relevance of interactivity (see e.g. the IReport feature of CNN.com), reader influence also grows in more general journalistic publications. NYtimes.com offers its readers a comment function and set up a blog feature. These two NYtimes.com articles, "God Talk, Part 2" and "Elizabeth Edwards Goes Public", explicitly respond to readers' comments and encourage further discussion.

This motivated participation of readers gives way to arguably the most prominent controversy regarding digital hypertexts: the question regarding the role of the writer as a (hyper)text producer. Already in printed hypertext, the role of the author is altered since the reader decides which reading path to pursue - different from the linear text, where the reader follows the reading path given by the writer (Hautzinger, 1999). However, the author of a printed hypertext still has a higher degree of control over the reader's chosen path than the author of a digital hypertext, since the author of the printed one is also the author of all the opportunities the reader is confronted with. On the other hand, the author of a digital hypertext may lose the recipient in seconds when the reader clicks on a hyperlink within the article that leads to another author's article, which could also be a text by an author of a completely different website. Naturally, the author of a digital hypertext decides where to insert the links. Even then, the author's influence upon the reader diminishes and Bolter (1992, p. 24, Simanowski, 2005, p. 193) sees hypertext as "a vindication of postmodern literary theory". This is not only due to the fact that the process of continuing the reading path to a hypertext by another author can happen much more quickly than in the print medium. The other reason is the aforementioned influence of the readers' community. If hyperlinks to other, thematically related (hyper)texts are posted beneath the original hypertext, the reader may well decide to continue the reading path to a destination not originally intended by the author. Consequently, Hautzinger's (1999) mentioning of Barthes' idea (1977, p. 143) regarding the ideal text, where different networks interact freely with each other, and the connected concept of the "death of the author" is not surprising. The question regarding the author's influence on the reader is thus as current as ever, and does not stop at the borders of net literature (for further reading on net literature see e.g. Simanowski, 2005, Hautzinger, 1999 and Bolter, 1992).

SOLUTIONS AND RECOMMENDATIONS

Both seclusiveness and the ephemeral nature of digital hypertexts pose first and foremost a methodological problem. Given these issues, it is obvious that the content one wants to analyze needs to be fixed in some way, since this rules out the danger of a website or selected content being deleted after publication and thus not being retrievable for research. Santini (2006) sees the same problem for corpus-based research aiming at textual features of websites in general. She sees especially HTML tags (Santini, 2006, p. 68) as a feature that impedes the extraction of content into an offline-corpus. One of her propositions to handle the problem, i.e. transferring HTML-content to ASCII-content, does not fully resolve the issue since text-related features such as embedded hyperlinks and graphics are lost in the procedure.

In my own research on music webzines I propose a procedure that avoids this loss, i.e. to save the wanted online content as "MHTML" to a stationary data file. Although this method is not suitable for a corpus-focused, quantitative approach, it gives qualitative studies the necessary stationary data. Webzine content is available offline; the original hyperlinks and graphic enhancements are contained and can be studied even if the site has been taken offline in the meantime. Wikipedia.org (http://en.wikipedia.org/wiki/MHTML) defines MTHML as follows:

MHTML stands for MIME HTML (Multipurpose Internet Mail Extension HyperText-MarkupLanguage). It is a standard for including resources that in usual HTTP pages are linked externally, such as images and sound files, in the same file as the HTML code, based on RFC 2557. The included data files are encoded using MIME. (…) The .mht format was introduced in 1999 with Internet Explorer 5[1], which allows users to save a web page and its resources as a single MHTML file; a "Web Archive". This feature, however, may be unable to save certain complex web pages correctly, especially those containing scripts.

This method is adequate when dealing with journalistic online publications. It is true, as mentioned in the Wikipedia.org article above, that it can be more complicated to save pages offline that may use JAVA scripting in their banner ads. In this case, the banners cannot be saved by this method and alternative methods are required (regarding online advertising, see e.g. Janoschka, 2004). However, when it comes to online magazines, this method can be used to save both articles as well as content of online forums (e.g. in PHP-format) or message boards. Hence, it is possible to follow a discussion about an article even if users later delete or alter their comments. Naturally, a combination of procedures, i.e. ASCII-conversion (as proposed by Santini, 2006) and MHTML-saving is also possible, depending on the research focus. The crucial point is to save analyzed content offline, so it is always available to the researcher. Moreover, programs such as Microsoft Word support a simple copy-paste procedure and display links found in the online hypertext. However, this procedure sometimes results in distorted graphics depending on the webzine's programming. The MHTML process leads to the most exact fixation of graphics. It can also be used to track daily changes, and they can be compared to possible readers' comments in message boards or forums. Thus both hypermedia elements such as graphics as well as the dialogic nature of the analyzed (hyper)texts are considered and a holistic analysis and evaluation is ensured.

Regarding the issue of seclusiveness when it comes to hypertexts, webzine makers choose a rather conservative approach. Part of this is a consistent layout which presents a kind of corporate identity that a reader might also expect from a newspaper. Regarding the core content, i.e. the different articles, Huber's (2002) top down analysis model TAH (text linguistic analysis model for hypertexts) proves useful, even though his distinction between hypertext, knots and links must be slightly modified. This is due to the potentially confusing definitions of *hypertext* and *knot* since a *kno*t could be both an e-text or another hypertext. Hence, it is most practical to see the webzine as a genre, structured as a hypertext net (in Storrer's vein). This net includes different hypertexts, e-texts and hypermedia parts which can be called *knots* ("Knoten") following Huber's model (Tyrkkö, 2008 calls them fragments, for further discussion see also Jakobs, 2005), as well as allowing for CMC instruments that permit reader feedback and community-related actions. Links, last but not least, connect these different features together and show the reader the available selection opportunities.

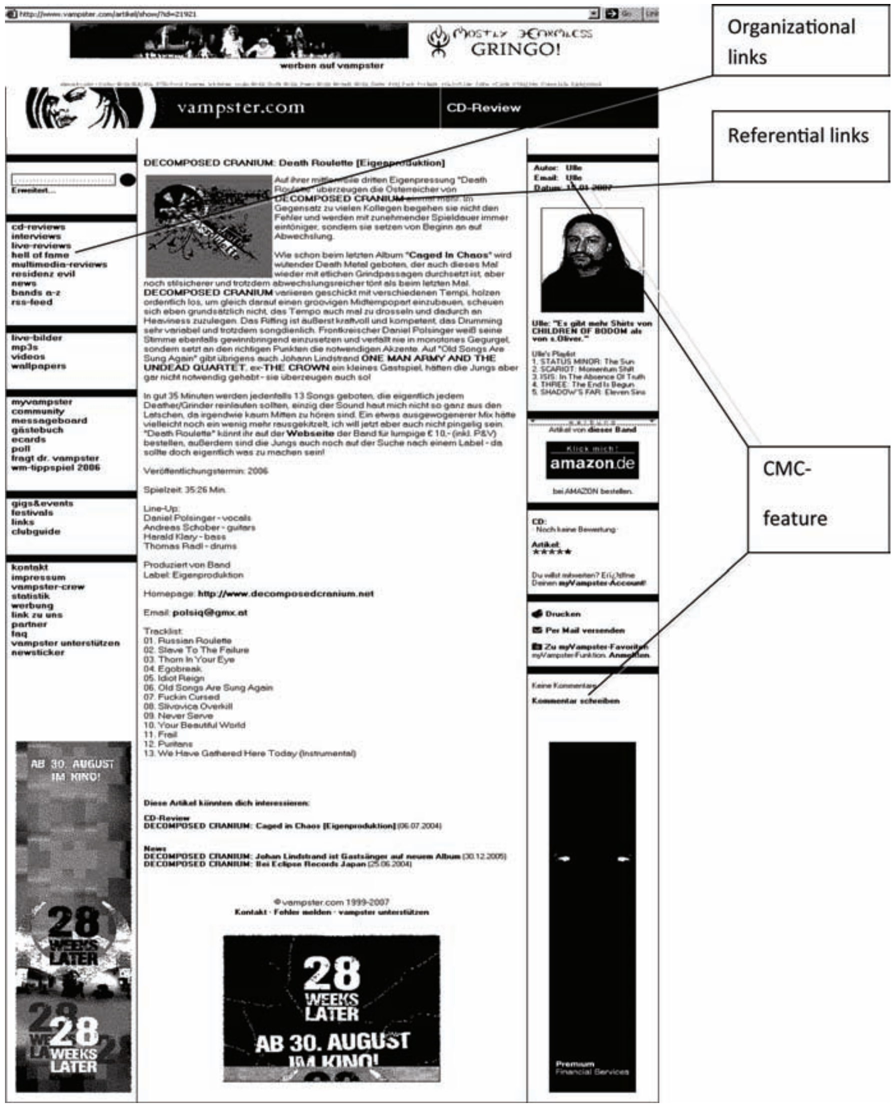
The hyperlinks used by webzine creators can be distinguished by separating them into three categories. Based on Conklin (1987), Huber (2002) proposes a distinction between referential (association-based) and organizational (typified) links. While it is normal in the field of hyperfiction to also include ambiguous links that do not have a clear semantic aim (like referential links) and to leave it to the reader to guess where they will lead (see e.g. Tyrkkö, 2008), webzines avoid this kind of playfulness, and always ensure that hyperlinks are graphically highlighted, be it by underlining them or using a font color that makes them stand out. All webzines use organizational links that serve navigational purposes. From the "front" page, one finds indices to quickly reach the different content, much like the table of contents in a print magazine. As most webzines prefer a frame-based layout, they also tend to give the reader the possibility to quickly leave an article to move on to other articles or other parts of the magazine, by providing organizational hyperlinks surrounding the article in question. It is also usual to place the webzine's logo in a top position, to serve as an icon that brings the reader back to the front page without having to hit the "back" button on the browser (see e.g. www.vampster.com).

Referential links, on the other hand, are less frequent. Not all webzine articles are hypertexts; very often one finds e-texts that are hardly surrounded by navigational links. If the article is a hypertext, referential links are embedded and content-related. Given their semantic value, they can both be implicitly embedded and explicitly introduced. In the first case, a reader might click on the link only knowing that it will lead to semantically related content. In the second case, the hyperlink's existence is explicitly explained. This is the case, for example, for deictic expressions functioning as link anchors such as "for more information click here". When hypermedia content, such as a YouTube clip, is part of a news article, similar introductions are used. It can be observed that clicking on such links always remains optional and the article can be understood without this kind of extra-(hypermedia) information. Furthermore, webzines explicitly tell readers when a link leads them to content outside the webzine's boundaries. The seemingly postmodern idea of "anything goes" in a global hypertext world wide web is hence still met with a sense of corporate identity on the side of the journalistic publication in question. Sometimes these links to outside sources are colored differently than links to content within the webzine (see e.g. www.metal-rules.com). Despite these links, the analyzed music webzines do not maximize hypertext opportunities. E-texts are still frequent and only a minority use embedded content-related hyperlinks.

The third type of hyperlinks used in webzines can be called the CMC-feature links. Naturally, organizational links may lead a reader directly to the webzine's online forum. However, there are also links close to the read article that motivate a reader's response via CMC instruments. Most webzines offer links just below or beside an article that invite the reader to comment on the article. These comments either appear just below the article or in an automatically-produced thread in the webzine's online forum. For more private feedback, the author's name is often a high-lighted anchor for a link that opens either a new message to the author in the reader's e-mail program, or a contact form with the same function, i.e. to contact the author directly. The digital medium not only makes this contact a matter of seconds, but also encourages the direct contact between author and readers as well as between different readers in the online forum discussion. Directly contacting the author thus replaces the print-medium's letter (or e-mail) to the editor. The selection by the editor, i.e. which letters should be published and publicly answered, also becomes obsolete. Even though politically incorrect public comments may be deleted by the webzine's creators, the quantity of reader responses rises and becomes obvious to other readers. Most often there is a record of the deletion in place of the original comment (like "this comment has been deleted"). Figure 1 shows these three different kinds of links using the example of a review published by German webzine www.vampster.com.

So does this lead to a radically new role definition when it comes to text producer and recipient? When looking at the current situation in music webzines, the answer to this question has to be: not a radical one. Surely, mistakes can be corrected after publication and this correction may very well happen due to reader feedback. The largest change thus happens regarding the text producer's authority. Reader participation is encouraged by the CMC tools, and the journalists can become discourse partners more easily than is the case in offline publications. Articles may be questioned; a public discussion may take place. Naturally, a reader may choose to read the different inputs and participate in this discussion instead of continuing

Figure 1. [Different types of hyperlinks in a webzine article]. (© 2, [vampster.com]. Used with permission.)



to read the original article. Moreover, in some cases readers influence a webzine's content even before publication. The German webzine www.metal.de encourages readers to submit interview questions for upcoming band interviews in the webzine's own online forum. By this procedure, readers become co-authors of an interview, at least regarding a fragment of the interview if the journalist chooses to actually use their suggestions. Yet, the presence of digital hypertext and CMC in the world of the webzine does not make the notion of the author obsolete. In contrast to hypertext or net literature, the journalistic publications still follow rather conservative paths and are clearly set apart from collaborative website projects such as Wikipedia.org. Moreover, in contrast to traditional one-way journalistic products, webzine content requires the researcher to include readers' response in the scope of (hyper)text research, and to commensurate text linguistic interpretation models.

FUTURE TRENDS

In the depths of the World Wide Web, it is easy to get lost. As more and more opportunities emerge to do things like promote one's own art or business, the danger of getting lost rises. Digital communication naturally gives more people the opportunity to communicate with each other and to gain access to information. Regarding webzines, which combine journalistic content and CMC features, the trends lean in the direction of personalization and community-building features (see the discussion regarding Web 2.0 and Sundar, 2007). While the World Wide Web may be seen as the ultimate postmodern playground of anything goes, the webzines' future lies in tailor-made solutions for their readers. In the age of Myspace, Facebook and other social networking sites, the webzines personalize their format thanks to personalized reader profiles (see for example MyVampster of vampster.com, which shows the registered reader immediately which articles have been published since the last visit). Thus one future trend lies in offering the reader personally-selected articles according to individual interests and preferences. These preferences, on the other hand, are determined only by what the reader chooses to add to a profile used in the webzine's online forum. A similar procedure is used by the internet radio station www.last.fm, which "learns" a listener's preferences and then provides links to "similar artists" (with the help of tagging and tracking users' preferences). Music webzine www.vampster.com also includes a "similar bands" hyperlink list next to its articles, which, not surprisingly, is based on last.fm technology. This list leads the reader directly to articles about similar bands and hence aims to offer more content that might be of interest to this specific reader.

When it comes to music webzines, the trend to this kind of individualization is obvious. The webzines keep a distinct corporate identity with their specific layout and offer their readers not only a social, interest-driven community network, but also let the reader know what is specifically relevant according to own interest. An anything goes attitude does not add extra value or keep readers; individualization is key. This does also ensures that a reader spends quality time on the website, thereby making interest-based advertising attractive for both advertiser and client. After all, the notion that online content is free does not seem to be vanishing and webzines hence rely on banner advertising, for example. Nevertheless, the reader is offered different choices despite the individualization, be it further information on a specific artist or a link to a sought-after video clip.

A webzine's CMC features give the reader new opportunities. Regarding future trends, and given the arrival of extremely short text producing forms such as the Twitter microblog, it can be estimated that the channels for readers' reactions will grow in variety and may well include video clip feedback in the future (as it is already the case on YouTube where different users reply to other videoclips by uploading a "video reply"). Even though every reader has the opportunity to actively participate, it remains a matter of choice. Hence, the information or participation democracy that would be possible due to the communicative instruments depends on how much the reader actually can or wishes to participate. A reader who can invest time and energy in being an active (hyper) text recipient may very well influence a writer, may stimulate changes and eventually become an active part on the creators' side of a webzine. It remains doubtful, however, that the changes to reader-writer roles due to CMC will lead to the complete displacement of all traditional reader-writer structures in online journalism.

Regarding future research, there are still many opportunities when it comes to methodology. The MHTML-procedure presented above is not advisable for large amount of texts or corpus-building on a bigger scale. Automated searches for both word formations and graphic elements may be a future challenge, especially as web programming technology develops and becomes more complex.

On the content level, both discourse in online forums and the use of hyperlinks still offer more research prospects. And last but not least, since the World Wide Web has thus far given rise to so many new forms of communication, one can still be on the lookout for the successors of vlogs, Twitter micro-blogs and other yet-to-be-named communication creatures.

CONCLUSION

The arrival of digital hypertext has not gone unnoticed in the world of journalistic publications. Webzines combine journalistic content with CMC features, which help foster an online community, where readers are motivated to respond to published articles and take part in shaping content. However, a look at the current situation shows that the possibilities hypertext offers are not fully exploited by webzine makers. While hyperfiction goes to extremes, the journalistic implementation remains rather conservative. E-texts without referential links are still frequent, and hypermedia and hypertext features remain mainly optional to the readers. CMC features on the other hand not only establish a closer and more immediate contact channel for author and reader, but also help in personalizing content to a specific reader. At first glance, this appears as a counter-trend to the World Wide Web's prevailing "anything goes" attitude. However, it has become crucial in these times to find the exact piece of information that one needs and the popularity of "My"-instruments has also reached journalistic publications such as webzines.

Regarding the linguistic research of such content, it still holds several challenges. First of all, researchers are in need of a fool-proof methodology for saving digital hypertext content for analysis. The MHTML method presented above serves well with a small corpus for qualitative reasons, however on a larger scale and with quantitative aims in mind, another method is required. Furthermore, existing text linguistic models must be enhanced in order to take for example hyperlinks into adequate consideration. The researcher now also needs to include readers' remarks into the interpretation scheme. After all, readers may shape an article after its publication on the web. Though this influence is still small at the moment, it challenges the roles of text producer and recipient. Nevertheless, hypertext does not vanquish the journalist's influence on the reader since it remains the (hyper)text producer who sets the links and therewith gives the reader the array of opportunities to choose from.

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KEY TERMS AND DEFINITIONS

Blogs: Blogs are public, online diaries. They can be dedicated to one specific topic (e.g. politics) or serve as a view on the world by one person. Other than diaries, blogs make use of hypertext features and motivate readers to respond via comments which are also published.

CMC: CMC stands for computer mediated communication. This includes forms of communication with several participants such as chat and online forums, but also forms with a private one-to-one angle such as personal e-mails or private messages (in online forums).

E-Text: An e-text is a text that has been transferred to the digital medium.

E-Zine: The term e-zine is used for non-commercial online magazines. Their makers dedicate their leisure time to their production and focus on e.g. non-mainstream music such as grindcore.

Hypertext: Hypertexts are texts where a reader can choose a non-linear reading path according to own interest. Non-digital hypertexts include newspapers or encyclopedias. Digital hypertexts can be non-seclusive and make use of hyperlinks. A hypertext can have several authors.

Hyperlink: A hyperlink is an electronic linkage leading from one piece of website content to another. Hyperlinks may be used for referential, organizational or CMC-enabling purposes and are graphically marked.

Seclusiveness: Seclusiveness means having clear boundaries. In respect to text linguistics, seclusiveness is a text criterion represented by texts with an obvious beginning and an apparent end.

Webzine: A webzine is an online magazine that combines journalistic content and CMC features, making use of hypertext technology. It may also make use of banner advertising for financing reasons.

Chapter 24
Thematic Organization and the Analysis of Selected Online Academic Scientific Journals' Sites

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ABSTRACT

This chapter analyses the thematic organization of the instruction to authors' section of selected online academic scientific journals' sites. Fifteen scientific journals were selected randomly from different fields in the sciences. The theoretical framework for the study is provided by Systemic Functional Linguistics. The results showed that the marked theme had a higher occurrence than the unmarked theme. The marked themes were realized by adverbials and grammatical subjects. The unmarked themes were realized by subjects and predicates. Simple themes had a higher occurrence than multiple themes while interpersonal themes had more frequency than textual themes. The editors observed the given-new information structure as there was a low occurrence of entirely new information. The derived theme pattern was mostly used while the split-theme pattern had the least occurrence. The results show that the editors of these journals made use of these structures to organize their message logically and coherently.

INTRODUCTION

The analysis of discourse on the internet has led to a new area of study referred to as computer-mediated discourse (CMD), which focuses on language and language use by humans through networked computers, using the methods of discourse analysis, pragmatics and sociolinguistics as tools for analyzing language and language use. CMD is an important aspect of computer-mediated communication (CMC), which is the communication among human beings through networked computers. CMC is mainly text-based and covers the transmission of messages through Internet Relay Chats (IRCs), e-mails, Instant Messaging (IM), text messaging, bulletin boards, listservs, blogs, wikis, podcasts, and online conferencing (see Herring, 2001).Quite a number of studies have been carried out on CMD and these include the study of discourse structures (Turoff et al, 1998), conversational analysis (Hol-

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mes, 1987; Beißwenger, 2008), ethnography of communication (Androutsopoulos, 2008), gender studies (Herring, 1994), and generic structure (Goutsos, 2005).

The instructions for authors sections of academic scientific journals sites, also referred to as guide for authors, are webpages of electronic journals where editors communicate the guidelines for the writing of research articles to would-be authors. This is to make sure that all the papers in the journals follow a particular format. This chapter attempts a study of the thematic organization in selected instructions to authors section of online academic scientific journals' sites. This is important as there is an increasing need for would-be authors from different countries to access these sites in order to publish their articles, as most journals have contact with authors and reviewers through the internet. The data for the study include fifteen academic scientific journals' sites (instruction for authors section) selected randomly from different fields in the sciences. These were sourced from the internet. The theoretical framework for the study is provided by Systemic Functional Linguistics. The texts are analyzed at three levels of thematic organization-information structure of the given-new dichotomy, thematic structure of the theme-rheme dichotomy and thematic progression.

BACKGROUND

Thematic organization is a functional resource that serves as one of the markers of textuality in discourse and it is closely related to discourse coherence (Downing, 2001). It is part of the structural cohesive devices in English, Halliday (1989). Thus, it is necessary to look at the various aspects of thematic organization within discourses. The aspects to be studied in this paper include Halliday's (1985) given-new dichotomy of the information structure, the theme-rheme dichotomy of the thematic structure and thematic progression of the Prague school.

In English, every clause is divided into a theme and a rheme. The theme is the starting point of a clause while the rheme is the remaining part which develops the theme. This is exemplified below:

Barack Obama is the President of the United States.

Barack Obama is the theme while the rest of the sentence is the rheme.

In declarative clauses as seen in the one above, the subject is also the theme and in this case, the theme is said to be unmarked. Unmarked themes exist in interrogative clauses as finite and subject (*Who* opened the door? or *Have you* seen him?); in imperative clauses as predicator (*Open* the door) and in exclamative clauses as Wh-complement or Wh-word adjunct (What a beautiful day this is! or How delicious this food tastes!).

Marked themes occur in declarative clauses when any other element apart from the subject is placed in the theme position. The most common element that appears as marked theme is the circumstantial adjunct as seen in example below:

After a long time, the man left the palace.

Complement can appear as a marked theme as seen in the example below:

John I love, *Jane* I hate.

Barzegar (2008) opines that thematization in English is a process of shifting various sentence elements to the initial position with any grammatical changes within a sentence, which are caused by such a movement. In the case of passive sentences, the complement is put in the subject position and thus it becomes marked. An example is given below:

The man was hit by the car.

From the example above, one can state the active sentence as

The car hit the man.

Thus, *the man* as the complement has been taken to the subject position.

A clause that has just one theme is said to have a simple theme. Sometimes, the clause has more than one theme. Such a clause has a multiple theme. In English, three possible *themes* can be found. This includes the textual theme which consist of discourse markers and conjunctions; interpersonal theme which consists of vocatives, mood adjunct, unfused finite; and the topical theme is what the clause is about and consists of elements that can stand in the subject, predicator, complement and adjunct positions.

Utterances can be divided into two parts, which have a function in the overall communication of meaning and are referred to as 'given' and 'new'. 'Given' centers on elements that have been mentioned prior to a particular point in the text and are recoverable from the text itself or from the extra-linguistic situation. 'New' contains those elements that have not been mentioned prior to that point in the text and are not recoverable from the extra-linguistic context. In most constructions, given information precedes 'new' information while in some cases, 'new' information precedes 'given' information. Sometimes, all information may be 'new', as in imperatives. In written academic scientific discourse, it is expected that 'given' information would normally precede 'new', Downing (2001). 'Given' information may be determined by the following principles: identical wording, synonymous expression, paraphrase, and semantic inference.

The theme-rheme structure and the given-new structure are semantically interconnected. There is a close semantic relationship between information structure and thematic structure. Other things being equal, a speaker will choose the theme from within what is given and locate the focus, the climax of the new, somewhere within the rheme. In other words, theme and rheme are determined by the speaker, while given and new information are determined by the hearer.

Thematic progression is founded as part of the theory of language known as Functional Sentence Perspective (FSP) propounded by scholars of the Prague School (See Danes (1974) as cited in Downing (2001)). Thematic progression is a structural cohesive device which goes beyond thematic structure within the clause to thematic choices in longer stretches of discourse, Halliday and Hasan (1989). Thematic progression allows readers to perceive how the successive themes and rhemes of a text overlap one onto the other and weave in this way the sense of the passage. It also gives expression to the dynamic character of textual meaning (see Matthiessen, 1992). The progression patterns to be studied in the texts are explained below:

The Constant Theme Pattern: In this pattern, a series of clauses share the same theme. This is usually used in short biographies, textbooks and description of factual information focusing on a particular concept e.g.

Mr. Jones is a student of the University of Ibadan. *He* was born in 1970 and *he* attended Ashford International School and St. James Secondary School. *His parents* were farmers and *he* went with them to the farm.

The themes of the subsequent clauses, *he* and *his parents* both refer to the theme of the first clause, Mr. Jones.

The Linear Theme Pattern: Here, the rheme of one clause is taken as the theme of the following clauses. An example is given below:

Nigeria is made up of *thirty states*. *These states* have their own executive council, judiciary and House of Assembly. *They* get their financial allocation from the Federal government.

In this example, the rheme of the first sentence, *thirty states,* is the theme of the succeeding clauses as *these states* and *they* refer to the thirty states.

Split-Rheme Pattern: This occurs when the rheme of a clause has two or more parts and each is taken up in turn as the theme of succeeding clauses. An example is given below:

The Nigerian Government is made up of the *Executive Council, the Judiciary and the National Assembly*. *The Executive council* consists of the President, Vice-President and the Federal ministers.

The Judiciary consists of Judges of the Supreme Court while the *National Assembly* consists of the Senate and House of Representatives.

The rheme of the first clause is made up of three parts, the *Executive Council, the Judiciary and the National Assembly* and these are taken up in turns as the themes of the subsequent clauses.

Derived Theme Pattern: This is used in longer texts with different topics, where the writer may refer back to any of the topics or aspects of the topics and use as themes of the subsequent topics. Thus, there is a *hypertheme* from which the *derived themes* are taken. An example is given below:

The University of Ibadan is the first university in Nigeria. *The students* are admitted on a merit basis from different parts of the country. *The lecturers* are also employed from different parts of the country. *Some of the buildings* are very old while there are recent ones in the university.

In this example, the students, the lecturers and some of the buildings are linked with the hypertheme (the University of Ibadan) in meaning and not necessarily in form.

This paper advocates that there is still a fifth pattern, which is referred to as the split-theme pattern and it is quite different from the derived theme pattern. Here, the theme is made up of two or more components and each is taken up as themes in subsequent clauses. An example from the text is given below:

Reviews and Opinion articles form the foundation of each monthly issue. *Reviews* are invited from leading researchers in a specific field and objectively chronicle recent and important developments. *Opinion articles* present a personal, authoritative viewpoint of a field or research-related subject. (TPS)

In the example above, the theme of the first clause is made up of two parts- reviews and opinion articles and each is taken in turn as the themes of the subsequent clauses.

Different scholars have looked at the application of the different levels of thematic organization in the structuring of information in written discourse. Gosden 1992 analyses and describes marked themes in a corpus of scientific research articles and their potential for within-text structuring in scientific discourse. The results indicate that thematic flow can be predicted on the basis of the rhetorical goals inherent in each section of research article discourse. In the study of scientific texts, Nwogu (1995) reports that authors of experimental research papers observe the given-new perspective in their organization of information and they adopt certain progression patterns of given information in developing information in particular segments of the report. While the constant theme progression was the most popular type used in the texts, the derived theme pattern was the least used. Downing (2001) suggests that the derived theme progression pattern is well represented in the leisure sections of newspapers and magazines. In another vein, in the field of computer-mediated discourse, Gruber (2001) investigates functional and structural differences and similarities between postings on two linguistic e-mail discussion lists and three other academic genres (discussion section of a scholarly journal, literature review sections of academic papers, and book reviews). He reports that all the genres share a common background, which is called the academic discourse. However, he posits that e-mail contributions differ from all other genres with respect to several textual features including frequency of interpersonal and textual themes, as well as marked themes (prepositional phrases) etc.

Martínez (2003) analyses the thematic structure of the method and discussion section of biology research articles. The study reveals that there are differences in the thematic construction of the sections. The method section is dominated by simple themes and realized by subjects that predominantly represented objects of research. The few textual themes found were mainly temporal external themes. The simple themes of the discussion were mainly realized by subjects that represented abstractions, particularly epistemic concepts. There were an important proportion of textual and interpersonal themes. She opines that the differences found may be attributed to the different rhetorical purposes of the sections, which materialize in descriptive texts in the method section and in argumentative texts in the discussion section. She believes that the results provided by this research may contribute a tool for teachers to help learners construct sentences that are appropriate for the genre. All these works have looked at different aspects of thematic organization in different types of scientific texts. However, they have not studied instruction to authors section of online scientific journals which are quite different from the scientific texts studied in the papers. Thus, the results of these studies will be quite different from the present study.

ANALYSIS AND DISCUSSION

Thematic Structure

The analysis of the thematic structure of ITA section reveals that the marked theme was used more than the unmarked theme with occurrences of 56.4% and 43.6% respectively (see table 1 in the appendix). The high occurrence of marked theme may be due to the heavy use of adjuncts, which aids coherence, as well as to emphasize or foreground certain words which the reader ought to take importantly.

Marked Theme

Marked *theme* was realized by the use of grammatical subject in passive constructions (nominal groups and nominalization) and adjuncts (adverbial phrases, prepositional phrases and adverbial clauses). Grammatical subject in passive constructions had an occurrence of 69.4%. This can be seen in the example below.

Text headings and subheadings for different sections of the article should be clearly indicated. (AMS)

In the example above, *text headings and subheadings for different sections of the article* is in the subject position. In an active construction, it is the complement; thus, it is marked as a subject in the passive construction. The active construction will read thus:

You should clearly indicate *text headings and subheadings for different sections* of the article.

This, also, is the case in the example below:

Authors are requested to submit their articles electronically to one of the Editors John Grattan,…. (JAS)

Authors is in the initial position in the passive construction but the complement in the active construction. Passive constructions have been found to be used in scientific discourse as it has an impersonal role (see Rundbland, 2007).

Adjuncts had an occurrence of 30.6% and are realized by adverbs, adverbial phrases, prepositional phrases and adverbial clauses. This is can be seen in the example below:

Once you have logged on as author using your journal username and password, you will be guided through the creation and uploading of your files. (AFM)

Here, *Once you have logged on as author using your journal username and password* is an adverbial clause and has been placed in the initial position. In the example below, it is a prepositional phrase that has been placed in the initial position; thus, making it a marked theme.

In typing the manuscript, titles and subtitles should not be run within the text. (AIM)

Unmarked Theme

The unmarked theme featured in two ways. This includes the subject in a declarative sentence and the predicate in an imperative sentence (see the appendix). This is discussed below:

The subject in a declarative sentence had an occurrence of 76.46% and this is realized by nouns, nominal phrases, nominalizations. They were used to discuss the different parts of the paper meant for review and publication *Reviews and Opinion articles* form the foundation of each monthly issue. (TPS)

In the example above, *reviews and opinion articles* is the subject of the sentence and the unmarked theme. This also goes for *all accepted manuscripts, artwork, and photographs* in the example below:

All accepted manuscripts, artwork, and photographs become the property of the publisher. (CREST)

In the example below, the subject is realized+ by a nominalization. *AJPM* is the acronym for the journal name and it has been used as a noun and the unmarked theme of the clause.

AJPM accepts manuscripts electronically through the Internet-based Editorial Manager program

The predicate in an imperative sentence had an occurrence of 23.6% and this was used to give specific instructions on how to write or submit the papers. In the example below, *use* is the predicate and the unmarked theme as this is an imperative sentence.

Use the following guidelines to prepare your article. (AG)

Simple and Multiple Themes

Both simple and multiple themes were used in the texts. The use of simple themes had a higher occurrence of 71.8% while multiple themes had a lower occurrence of 28.2% (see table 2 in the appendix). This may be because it is both a scientific and an academic discourse where there is no personal interaction between the writer and the reader. In order to avoid confusion, complex and compound sentences are not usually used as the readership is large. Examples of simple themes used in the texts are given below:

The aim of Acta Mathematica Scientia is to present to the specialized readers (from the level of a graduate student and upward) important, novel achievements in the areas of mathematical sciences. (AMS)

In the example above, t*he aim of Acta Mathematica Scientia* is the theme of the sentence and it is a simple theme which is realized by a noun phrase. In the example below, the simple theme is realized by a noun.

Requests may also be completed online via the Elsevier homepage… (AJPM)

Under multiple themes, textual theme had a frequency of 46.9% while interpersonal theme had an occurrence of 53.1%. This may be due to the fact the texts are meant to instruct the readers and so there are quite a number of imperatives in the texts. The interpersonal themes are realized by finite verbs and modal adjuncts. The finite verbs have been used in imperative sentences. This may be because the editor is instructing the reader on how to write their papers in order to suit their journals. Examples of interpersonal themes used in ITA are given below:

Please submit the text source file in word format. (JAS)

In the example above, *Please* is the interpersonal theme while *submit* can be taken as the topical theme (see Halliday, 1985; and Bloor and Bloor, 1995).

Occasionally, a group of articles that are focused in a particular topical area will be published as a forum,… (AMI)

In the example above, *occasionally* is a modal adjunct and the interpersonal theme in the clause while, *a group of articles that are focused in a particular topical area* is the topical theme.

In the texts, textual themes have been realized by conjunctions and conjunctive adjuncts. This is illustrated below:

Papers are acceptable in any of the following languages: English, French, German or Spanish, *but* it is the policy of the journal to encourage authors to publish in English. (CM)

In the example above, *but* is an interpersonal theme while it is the topical theme of the clause. Here, it shows the relationship of contrast between the first and second clause. Another example is given below:

Each manuscript must be accompanied by a statement that it has not been published elsewhere *and that* it has not been submitted simultaneously for publication elsewhere. (CREST)

In this example above, *and that* is a conjunction and the textual theme. Here, there is both a coordinator- *and* and a subordinator- *that*, showing that the first clause is an addition to and dependent on the first clause while *it* is the topical theme of the clause. In the example below, *however* is a conjunctive adjunct and the textual theme while *the titles of publications in non-Roman alphabets* is the topical theme.

However, the titles of publications in non-Roman alphabets should be transliterated, and a notation such as "(in Russian)" or "(in Greek, with English abstract)" should be added. (JAS)

Information Structure

The analyses show that the editors observed the given-new information in the clauses as there are few occurrences of entirely new information in the clauses found in the texts. A clause in which the given-new information was observed had the occurrence of 86.5% (see table 3 in the appendix). In the example below, we have the given-new development illustrated:

Manuscripts should be written in clear and grammatical English, double-spaced throughout and organized as follows: *The first page* should contain the article title, authors' names… (JESH)

Manuscripts and *the first page* are given information while the remaining words in both clauses are new information. In the example below, clauses with entirely new information are illustrated.

State why the investigation was carried out, note any relevant published work, and delineate the objective of the investigation. (TAP)

All the clauses in this example are entirely new information. *You* is the given information and this has been ellipted from the text as these are imperative clauses. Here, the editor is instructing would-be authors on the things to write in the introduction of the papers. Scholars have noted that the given-new information and theme-rheme dichotomy are semantically related and usually, given information is usually located in the rheme. In the example below, given information is the same as the theme of the clause.

Manuscripts / should be written in clear and grammatical English, Given / New Theme / Rheme

In the example below, the entire clause is new information. Clauses with entirely new information had a low occurrence of 13.5%. The few clauses with entirely new information were either imperative clauses or clauses with existential 'it' or 'there'. The given information in the example below is the ellipted 'you' which is recoverable from the context as this is in an imperative clause. Thus, given information does not correlate with the theme which is 'state'.

(You) State / why the investigation was carried out Theme / rheme Given / New

Thematic Progression

The analysis of the texts reveals that the editors of the instructions to authors (ITA) section of scientific journals' sites have used particular progression patterns in developing information in the texts (see table 4 in the appendix). These are exemplified below:

The most popular progression pattern used in the selected texts is the derived theme pattern which had an occurrence of 41.4%. The following examples illustrate this pattern:

- *Tables* should be in Times New Roman, each on a separate page; vertical and horizontal rules (lines) should not be used within the body of tables. *Use* Arabic numerals to identify tables, and *limit* table heading to no more than 15 words.
- *Footnotes in tables* should be lettered (lower case a, b, c) except for statistical notes, which should be noted with an asterisk (*, **, ***). *All abbreviations used in a table* must be expanded in a legend under the table. *Significant results* should be presented in bold text within the cells of the table. (AJPM)

All the words in italics are themes. *Tables* is the hypertheme in the first clause while the themes of the subsequent clauses are derived themes. *Footnotes in tables, all abbreviations used in a table, and significant results* can be understood from the hypertheme*: tables,* which in itself is a hypertheme of *manuscript.* Another example is given below:

Manuscripts should be written in clear and grammatical English, double-spaced throughout and organized as follows: *The first page* should contain the article title, … and the address for manuscript correspondence including e-mail address and telephone and fax numbers. *The abstract* must be a single paragraph that summarizes the main findings of the paper. *After the abstract*, a list of up to 10 key words that will be useful for indexing or searching should be included. *The introduction* should be as concise as possible, without subheadings. *Materials and methods* should be sufficiently detailed to enable the experiments to be reproduced followed by the results and discussion section. *A concise conclusion* should appear at the end of the text. *Acknowledgments* should be brief and should precede the references section. (JESH)

In the example above, there is a hypertheme-*manuscript* and all the other themes of the subsequent clauses- *the first page, the abstract, the introduction, materials and methods, a concise conclusion,* acknowledgments are derived from the hypertheme.

The constant theme progression also had a high occurrence of 40.5%. IT has been used in specification of items in the manuscripts. An example is discussed below:

Page proofs are sent to the designated author. *They* must be checked carefully and (*they* must be) returned within 48 hours of receipt. (CEC)

In the example above, *page proofs* is the theme of the first clause and this has been substituted by *they* and used as the theme of the second clause. In the third clause, it has been ellipted by the writer.

- *Short communication* does not exceed three printed pages (incl. figures and tables).
- *They* are the appropriate form for new findings of temporary importance, comments on papers published in the journal, important new records. *They* should be written as a continuous text without the various divisions of regular papers (and without an abstract).(CJPAS)

In the example above, the theme of the first clause- *short communication* is substituted by *they* and this is used as the themes of the subsequent clauses.

The linear theme pattern had a low occurrence of 15% and this has been used in the description of parts of the manuscripts to be submitted. An example is given below:

Each illustration should have a *caption. The captions to all illustrations* should be typed on a separate sheet of the manuscript. (AIM)

In the example above, *a caption* is the rheme of the first clause and the theme of the second clause-*the captions to all illustrations.* Another example is given below.

Explanations that are necessary to the understanding of the table should be given *as footnotes at the bottom of the table*. *A footnote* should be indicated by a lower-case letter. (HM)

In the example above, *as footnotes at the bottom of the table* is the rheme of the first theme and the theme of the subsequent theme- *a footnote*.

The split-theme pattern was the least used as it had an occurrence of 3%. This has been used in the description of certain aspects of parts of the papers for publishing. This is discussed below:

Figures and tables should be kept to a minimum and will only be printed if essential. *Tables* should be prepared or saved using a word processing package with entries in adjacent columns separated by tabs. Authors should use footnotes to the tables to provide ancillary information rather than add such text to the title. *Figures: (i) line art* should be black on a white background.(JFPS)

In the example above, the theme of the first clause has two parts- *figures and tables* and each is taken up in turns as themes in the subsequent clauses.

FUTURE TRENDS

This work has looked at the thematic organization of instruction to authors section of academic scientific online journals' sites. Thematic organization is part of structural cohesion which is just an aspect of cohesion in English (Halliday and Hasan, 1989). Further work can be done on non-structural cohesion, which covers both grammatical and lexical cohesion. All these work together to give texture to a text. In addition, a comparative analysis can be done on journals in the sciences and journals in the social sciences or humanities to see if there are similarities or differences in the thematic organization of the instructions to authors' section.

CONCLUSION

Computer-mediated discourse involves the analysis of digital communication through the theories in discourse analysis. This paper has attempted a study of the thematic organization of instruction to authors section of online academic scientific journals' sites. The analyses reveal how editors structure information for its readers. The results show that the editors of these journals made use of these structures to give texture to the discourse as well as to organize their message logically and coherently. The analyses shows that marked theme had a higher occurrence than unmarked themes while simple themes had a higher occurrence than multiple themes. The analyses show that the derived theme pattern occurred most in the text while the editors observed the given-new development in the discourse.

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KEY TERMS AND DEFINITIONS

Information Structure: The ordering of information in a clause into the given-new development within clauses.

Scientific Journals' Sites: webpages of academic journals in the sciences Instructions to Author's Section: Editorial instructions to would-be authors of academic journals

Systemic Functional Linguistics: A language theory that is concerned with studying language function within social interactions.

Thematic Organization: This is concerned with the ordering of information within and across utterances

Thematic Progression: The development of theme and rheme along a long stretch of utterances.

Thematic Structure: The ordering of information along the theme-rheme axis within clauses.

APPENDIX

List of Abbreviations

AFM-Agricultural Forest and Meteorology
AG-Applied Geochemistry
AIM-Artificial Intelligence in Medicine
AJPM-American Journal of Preventive Medicine
AMC-Acta Mathmatica Scientia
AMI- Applied Material and Interfaces
CEC- Chemical Engineering and Communication
CJPAS-Canadian journal of Pure and Applied Science
CM-Clay Minerals
CREST-Critical Reviews in Environmental Science and Technology
JAS-Journal of Archeological Science
JESH- Journal of Environmental Science and Health, Part A
HM-Hydrometallurgy
TAP-Toxicology and Applied Pharmacology
TPS-Trends in Plant Science
ITA- Instructions to authors section

Section 3
Semantics and Pragmatics

Chapter 25
Gender and Politeness in Indian Emails

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ABSTRACT

This study extended recent attempts at analyzing and comprehending gender differences in emails with respect to cooperation and politeness in the Indian business scenario. Four hundred and ninety four emails were studied, out of which two hundred and fifty emails were written by men and two hundred and forty four by women. Collated emails related to directives and non-directives that pertained to information processing as well as soliciting task completion through adherence/violation to principles of politeness. Results revealed that specific forms of politeness will result in cooperation among team members/coworkers in email communication; adherence to politeness maxims is higher in women than in men; specific examples of violations of politeness maxims are higher in men than in women; adherence to politeness maxims in clusters is not gender specific but is contingent on the needs of the situation or the organization; and in directives the variations in use of politeness maxims across genders is the highest.

INTRODUCTION

During the last two decades computer mediated communication (CMC) which "refers to person-to-person communication. .. over computer networks" (Pickering & King, 1995, p. 479) has gained considerable momentum. Electronic mail, computer conferencing and related media all form part of CMC. Initial studies revealed significant differences in the nature of communication through CMC and face to face interaction. (Kiesler, Siegel, & McGuire, 1984; Siegel, Dubrovsky, Kiesler, & McGuire, 1986; Sproull & Kiesler, 1986). Sproull and Kiesler (1986) argued that unlike face to face interaction, CMC messages are not guided by social context cues, thus leading to differences in the way messages are structured. This "cues filtered out" perspective initially led to the belief

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that CMC was less personal and social than face to face interaction.However, several scholars have argued against this perspective. Walther (1996) used the concept of self presentation, as developed by Goffman (1959), to argue that CMC was "hyperpersonal" in nature. According to Goffman (1959), we present ourselves in a particular manner in order to create different kinds of impressions. CMC makes it easier for individuals to manage their self presentation and indulge in "selective self presentation", which Walther (1986) termed as "hyperpersonal communication." In the theory proposed by Walther (1986), two features of CMC – reduced cues and asynchronous communication - enable the users to control their verbal and linguistic cues and give them time to consciously construct communicative messages, thus helping them manage their self presentation.The most commonly used form of CMC is the electronic mail (email) which is commonly used for fructification of social goals (Baym, Zhang, & Lin, 2004). Emails have become a convenient measure to construct a new type of social interaction beyond space barriers in which cooperation is desired. In the email exchange, more often than not, principles of politeness are used to secure cooperation. Cooperation between the sender and receiver is a mandate for successful or effective communication/conversation (Grice, 1975). Previous studies (Brown & Levinson, 1978; Leech, 1983) have uncovered the relationship between politeness and cooperation in face to face communication. Extending the notion of "cooperation" and "politeness" for successful communication in emails, we find that cooperation can be secured though use of language/ words or non-use of specific language patterns/ words.Though impact of politeness on cooperation and vice versa has been studied extensively (Dubrovsky, Kiesler & Sethna, 1991; Goffman, 1955; Brown & Levinson, 1978; Leech, 1983), scant attention has been paid to violations of politeness principles and variations in choice of principles and clusters in emails across genders. Extrapolating the research findings in face to face communication, can we state that the link/ interplay between cooperation and politeness is equally relevant in emails? Is there a difference in the structuring of emails across genders? There are almost no validation studies on emails in the Indian context which can provide an answer to the above raised questions.Our goal, in the chapter, is to gain a conceptual understanding which would help us assess how men and women appraise different situations, initiate dialogue and respond via emails. The study offers challenging scope for analysis of the level/extent of politeness or type of principles used/abused to solicit cooperation in emails by men and women. While emails can be used for both formal and informal transmission of messages, this chapter focuses on the study of formal, organizational and task related emails in which social interaction is studied through adherence or violation of politeness maxims. It applies Principles of Politeness and maxims developed by Leech (1983) to study the use of politeness in emails across genders.The chapter provides an overview of a study examining 494 emails to understand how men and women use politeness maxims to gain cooperation in workplace situations. The objectives of the chapter are as follows:To understand the influence of gender and politeness on writing style in work related emails in the Indian context.To identify gender based similarities/differences in formal style of email writing.To examine the relationship between cooperation and politeness in emails across gendersTo evaluate instances of adherence and violation of politeness maxims in emails.

BACKGROUND

The Indian Context

During the last two decades, the number of women at workplace has increased significantly. Since this is a comparatively new phenomenon in

India, the communication patterns - face to face and emails - have undergone a radical change. The emphasis has shifted from cooperation in same gender groups to understanding of cooperation and politeness strategies used by men and women in the organizational context (Kaul & Patnaik, 2006). Unlike the scenario in several Western countries, India is still faced with issues of the shrinking pipeline as women traverse up the ladder of success. Hence the need to analyze the communication patterns – oral and written – across genders.Research indicates that face to face communication patterns of men and women are widely divergent (O'Neil. 2004; Wilkins & Andersen, 1991). The phenomenon becomes more pronounced among Indian managers (men and women), many of whom are not well equipped or trained to work in diverse teams that operate in a unisex work environment and culture. Such uniqueness, when translated to email communication, makes India an ideal site for studying cooperation and politeness, which would have implications for managerial competence.

RESEARCH OVERVIEW

Politeness

Politeness theory has primarily been applied in face to face communication, barring a few exceptions (Morand & Ocker, 2003; Sussman & Sproull, 1999). Theory of linguistic politeness and "face" gained ground with the seminal work of Goffman (1955) in his explication of symbolic interaction as "dramaturgical perspective". The formal theoretical construct was provided by Brown & Levinson (1978:87). Brown & Levinson (1987) argued that politeness is governed by a need to be approved (positive face) and the need for independence (negative face). For an individual to maintain face, it is important that the "face" needs of the other individual be respected. Holtgraves (2002) argued that the theory of "face saving" and politeness is extremely important in providing an answer to different constructs.While politeness has been studied by many scholars as an important construct for "face saving", it has also been researched as a primary principle with a set of maxims, which governs effective communication between sender and receiver. Geoffrey Leech (1983), in an elaboration on Politeness Principle (PP), identified six Maxims: "Tact Maxim (minimize cost to the other and maximize benefit to the other), Generosity Maxim (minimize benefit to self and maximize cost to self), Approbation Maxim (minimize dispraise of the other and maximize praise of the other), Modesty Maxim (minimize praise of self, maximize dispraise of self), Agreement Maxim (minimize disagreement between self and the other and maximize agreement between self and other) and Sympathy Maxim (minimize antipathy between self and the other and maximize sympathy between self and other)" (p.132).

Gender and Communication

Research on gender and communication focuses on both spoken and written language. Scholars have deduced their findings on spoken language from "direct observation, interviews, or transcriptions appearing in large-scale corpora" (Baron, 2003, p. 9). Research findings revealed that language of women is less assertive than men, thus facilitating social networking, whereas the language used by men is more information oriented (Holmes, 1995; Cameron, 1998). Graddy (2004) reported multiple differences in the male and female conversational styles as men tend to be more adversarial, self-promoting, contentious, and assertive. Attributes associated with men included threats to individual expressions, concern with rules, posting of long messages, etc. On the contrary female language was found to be more "qualifying, apologetic, supportive, and polite" (p. 3). According to Lakoff (1990), females tend to use more expressive forms than males: "adjectives not nouns or verbs and, in that category, those expressing emotional rather than the intellectual" (p. 204). Herring (2000) stated that gender socialization in face to face interaction is essentially reflected in synchronous and asynchronous mediums of interaction. Gender variations in written language have also been spelt out by multiple scholars. Commenting on the analyzed corpus, Baron (2003) stated that "some of the data analyzed are historical in nature (relying heavily upon personal letters), while other data derive from large scale written corpora or experimental essay composition tasks" (p. 11). Arguably in this data differences in writing styles across genders have been reported. Mulac & Lundell (1994) in their analysis of impromptu essays of college students coded the data and suggested male and female language variables. The differences in writing styles of men and women have also been accounted for by linguists and social scientists. Additionally, socio economic factors influence the writing styles of men and women, more so in the case of emails which are task oriented in nature.

THEORETICAL CONSTRUCTS

Issues, Controversies, Problems

Politeness in Emails

Danet (2001) observed that "the relative status of addressor and addressee [influences] linguistic choice: messages addressed upward tend to be more formal, more polite, and more conforming with conventional norms" (p. 65). Arguably, emails form an interesting point of departure from the accepted and set pattern of analysis. They create an asymmetrical imbalance in the sender-receiver relationship. The sender can transmit information and get cooperation under way, but has no guarantee that the recipient has received the message (Riva & Galimberti, 1998) and will respond in a positive manner. Additionally, politeness "rules" differ depending on the situation in which or for which the message has been crafted (Argyle, 1992). Differences arise as the communicators have a sense of anonymity which could encourage them, for example, to be impolite and express their hostility or resentment explicitly (Reid, 1995).Several researchers (Chen, 2006; Danet, 2001; Herring, 2002) have discussed stylistic differences in email communication with different audiences. In other words, presence of social context cues stemming from hierarchy increase the level of formality and politeness (Spears & Lea, 1992) and "more socially desirable levels of interaction … and the creation of polite speech" (Duthler, 2006, p.18); while absence may cause email writers to be negligent of social protocol and formalities (Sproull & Kiessler, 1986). Additionally, absence of social context cues gives rise to impoliteness or violations of politeness which is reflected in the form of flagrancy, hostility and inhibitions (Kiesler, Siegel, & McGuire, 1984; Siegel, Dubrovsky, Kiesler, & McGuire, 1986; Sproull & Kiesler, 1986).In this context, two questions come to the fore: in situations where cooperation is uncertain, do the recipients respond with the same degree of politeness as initiated by the sender? Does the level/extent/degree of politeness affect the level of cooperation? Bunz & Campbell (2003) argued that messages with "verbal and structural politeness indicators" elicited the most polite responses. They observed that email recipients detect politeness indicators, and accommodate this politeness by including similar politeness indicators in their email responses. In other words, cooperation in emails can be achieved by politeness markers and indicators. Holtgraves & Yang (1992) defined politeness as "phrasing one's remarks so as to minimize face threat" (p. 246). Extrapolating the definition to an understanding of politeness phenomenon in written communication, we can postulate that the sender, by exercising care and being selective can construct carefully worded messages which minimize threat to face and adhere to principles of politeness.Emails, an extension of the form of written communication, similarly follow a planned and structured process in which the sender gets ample time and opportunity to compose, review, and edit the message before transmission. Securing cooperation through emails varies with the communicator's competence and skill at structuring polite emails. Words like "please", "kindly", "sorry", "relax", also referred to as politeness indicators and markers (Trip, 1971), have positive, polite connotations and their appropriate choice and positioning in the message solicits and gains cooperation. At the same time, researchers have also stated that email style is reflective of the organizational culture and other cultural differences. This argument found support in the study by Gains (cited in Murray, 2000) who examined 116 work related emails which supported the view that the process of writing emails [and outcome] was dependent on multiple factors.

Gender and Politeness Patterns

Politeness as a tool adds an important dimension to the study of gender and language in emails. The term "gender", as any other terminological choice, is laden with assumptions built on cultural roles and stereotypes developed over centuries and generations. In an experiment by Fishman (1980) one-third of the questions that women asked were tag questions. Other questions were requests for information or clarification. The study also revealed that women said ''you know'' five times more often than men. Impolite messages, it was found, were usually authored by males, while females were the perceived authors of the polite messages (Jessmer & Anderson, 2001). Holmes (1995) reported differences in politeness patterns between men and women and stated that higher degree of politeness in women's speech is often associated with submissive social roles.Smith et al, 1997, (cited in Herring, 2000), have found that women are more likely to thank, appreciate and apologize, and be upset by violations of politeness: they are also more likely to challenge offenders who violate online rules of conduct. In continuation with online rules of conduct, Herring (2000) argued that conventional styles of gender create a climate on the Internet which is more amenable to men than women. Her research revealed how men in online groups make strong assertions, disagree vehemently and quite frequently use profanity, sarcasm and insults. In contrast women use controlled assertions, polite expressions, offers and suggestions.Politeness in email exchange across genders has been extensively studied by researchers. Gender differences in emails can be explained by the research findings that men and women tend to use and understand language in different ways. Women's discourse also tends to be more tentative and socially oriented in contrast to men, who tend to be more categorical (Preisler, 1986). Witmer & Katzman (1997) found that women tend to use "graphical accents" more than men, which suggested an emotional tone in their messages. Furthermore, women show a proclivity to highlight cooperation in their discourse while men tend to be competitive (Coates, 1996).Literature (Trip, 1971) on politeness studies these words in the context of negative or positive politeness. According to Vine (2001), using directives in the context of workplace is neither straightforward nor simplistic. Vine (2001) stated that context is the deciding factor for use of different "strategies" in directives. Trip (1971) categorized directives into five components – imperatives, embedded imperatives, statements of need, questions, and hints – and claimed that in directives, the communication involves some sort of an action on the part of the recipient, which may involve varying levels of effort.Based on the issues presented above we have raised the following propositions:*Proposition 1: Specific forms of politeness (e.g.: tactful requests, agreements) will result in cooperation among team members/coworkers in email communication.Proposition 2: Individuals writing emails are aware of gender centric organizational acceptance and the composition of the emails is a reflection of the same.Proposition 2a: Specific examples* *of adherence to politeness maxims are higher in women than in men.Proposition 2b: Specific examples of violations of politeness maxims are higher in men than in women.Proposition 3: The choice of politeness maxims reflected in language use in emails is gender and task specific.Proposition 4: In directives, typically identified as "task oriented", there are variations in use of polite expressions across genders - this choice provides important cues regarding the use of language by males and females in emails.* These propositions were tested in the Indian context by analyzing task oriented emails sent out at the workplace.

Method

For the purpose of this study, 494 emails were analyzed and manually coded using Leech's (1983) six politeness maxims for analyzing politeness patterns used by men and women to solicit cooperation in task oriented emails.Data was collected by writing to various organizations in India soliciting samples of work related emails. Additionally, students and colleagues were requested to share task oriented emails. We received 494 emails, out of which 250 were written by men and 244 by women. The emails forwarded to us were written by men and women from a wide range of industrial sectors: Finance, banking, consumer durables, management consultancy, information technology, pharmaceutical companies, diary industry, automobile etc. All names were deleted from the emails. The gender, 'male' or 'female', of the sender, was written on top of the mails to facilitate coding on the basis of gender. We manually segregated the emails on the basis of gender. Subsequently, emails were cut and pasted on a word document file and a number assigned to them for ease of identification. This was followed by a manual coding process. An independent coder, who had earlier experience of coding transcripts on gender and upward influence for the authors, completed the task of coding all the 494 emails based on the six politeness maxims identified by Leech (1983). The minimum number of words in all the emails was ten and maximum number of words was 35.*Coding Process*: Emails were divided into two categories: directives and non-directives. The purpose of dividing the emails into these two categories was simple. The linguistic connotations of the word "directives" have a commanding/ordering note which is not bound by politeness but is intrinsically status or hierarchy specific. Thus under the category of directives we clubbed emails in which the sender assigns a task to the recipient. Emails that contained messages which were of the nature of "seeking information" or "tasks to be accomplished" were assigned to the non-directives category.The measurement process was conducted in three stages. In the first stage emails were segregated based on gender of the sender. In the second stage the emails written by men and women were further subdivided into two categories: directives and non-directives. The criterion for clubbing emails into different categories was based on adherence to different maxims of politeness. The emails were coded on the basis of Leech's politeness maxims as tact, approbation, generosity, agreement, sympathy and modesty. The mails that did not fall in any of these categories were labeled as 'others' which were then analyzed by the researchers and different labels assigned. Finally, in the third stage, in each category of directives and non directives, the text was coded by manually identifying words or clauses (politeness markers) that were mutually agreed by the researchers as measures for politeness. Sample examples of the same are as follows: "Please", "I will be happy to provide", "Could you please", "I would really appreciate", "Thank you" etc. We checked the initial coding of 58 random mails for authenticity. When 100% agreement on the coding process was arrived at, the remaining emails were given to the coder who completed the task. Once all emails were categorized, we again carried out a random check to ensure that the coding was done as per the requirements. It was found that in four cases, there was an error in identification of the gender of the sender. A re-run of the emails with the gender of the sender was conducted to ensure that the separation of the emails in the male and female category was accurate. To make the study robust we followed the process of manual count with chi square tests to assess frequencies of politeness use in language by men and women in email exchange.

SOLUTIONS AND RECOMMENDATIONS

Results

As the data involved frequencies of emails across groups, chi square tests were carried out to test if men and women differed significantly in the way they used language in emails. As the N for both men and women is comparable, analysis was done by considering equal expected frequencies across categories (directives and non directives). The hypotheses pegged the expected frequencies at equal numbers in categories tested.There were significantly more non-directive responses than directive ones in the male as well as the female category. For males the directive/non-directive analysis yielded a chi-square value of 193.6 (df=1) with a significance of 0.000, and for females the chi-square value was 163.93 (df=1), again significant at the 0.000 level. Gender, however, did not seem to play a significant role in the distribution of responses across the directive and non-directive categories between sexes. Additionally, gender did not affect the nature of responses pertaining to information seeking or task seeking.Maxims of politeness have been used in varying degrees across genders. For men, the chi-square value of 132.63 (df=5), was significant at 0.000 level. For women too, the chi-square value of 121.55(df=5), yielded similar significance.While analysing the use of individual maxims, the maxim of 'approbation' yielded a significant gender difference. The chi-square value of 4.24 (df=1) was significant at the 0.03 level, with men making greater use of the maxim than women. Additionally, females were observed to use significantly more tact than males. Chi-square value of 4.263 (df=1), was significant at 0.03 level.

Contrary to the results reported by Holmes (1995), this study failed to confirm the link between politeness and submissive role of women in society. Instead, the Indian data when extracted out of a large data pool supported the presence of politeness in all emails, though there was a perceived difference in terms of degree and form.

Findings

Cooperation and Politeness

Emails in our corpus were all task oriented. The task compliance focused on a request (pertaining to work) to be made, job/task to be assigned, or information to be solicited. While all emails were task oriented, they varied in politeness indicators

Table 1. Chi square values for directives and non directives

	Chi-Square	df	Sig.
Directive vs. Non-Directive Males	193.60	1	0.000
Directive vs. Non-Directive Females	163.93	1	0.000
Tact	4.26	1	0.039
Approbation	4.24	1	0.390
Maxims-Males	132.63	5	0.000
Maxims- Females	121.55	5	0.000

and markers. Some adhered to explicit expressions of politeness in the interest of securing cooperation, some indicated presence of more than one maxim of politeness, and some made use of politeness indicators as “Please”, “Thank you”, while others directly violated the politeness maxims. Emails written by both males and females sought cooperation by using politeness maxims in accordance with the first proposition –Specific forms of politeness (e.g.: tactful requests, agreements) will result in cooperation among team members/ coworkers in email communication.The finding is in tune with the findings of Blum-Kulka (1987) which emphasise the point that if the requester seeks compliance, a certain degree of politeness is required. There are no gender differences in politeness, hedges, pre- and post-request face work. In the organizational context, the nature of the task, that is, “request” precedes gender variables related to language. This code switch is evident in the writing styles of well educated female professionals who use the male interactive styles to “sound indistinguishable from their male counterparts” (Lakoff, 1990, p. 202).Gender and PolitenessOur study found that out of the 250 written by men, 121 used different maxims for the purpose of seeking tasks to be accomplished by members in the organization. Tact and approbation were two principles that were followed extensively by men, followed by agreement. For instance, the following statement is reflective of use of tact maxim in an email written by one of the male participants: *“Though the CP system does encourage people to talk in class, still it cannot supplement a full course and concentrated effort.”* Ninety three emails by women made use of maxims in which tact was adhered to maximum amount of time. Approbation and agreement were other maxims which were extensively observed. An overview of the use of politeness maxims by men and women can be found in Figure 1.

Differences in Adherence to Maxims

It was interesting to note that there was a difference in adherence to politeness maxims by both men and women. Our analysis of emails led to the following observations:Approbation and Tact were two positive politeness maxims used frequently in emails by both men and women. However, it was found that there was high *persistence* of Approbation maxim among males.

Men used flattery more than women in their emails. Their emails communicated praise and

Figure 1. Use of maxims – males and females

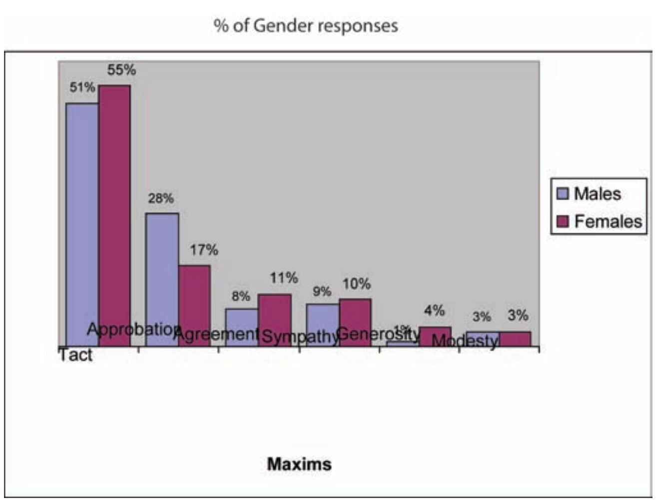
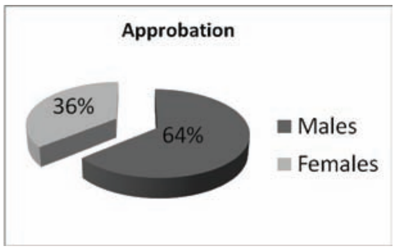


Figure 2. Use of approbation in males and females



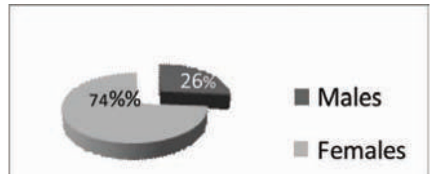
approval of the recipient's actions through statements such as, *"The material reads well and is full of information that professionals and students would find very useful."* However, this finding contradicts the existing literature which points towards the fact that as compared to men, women tend to praise and appreciate the recipient more (Herring, 1994). This again could be attributed to the cultural backdrop in which the emails were written where men take on the patronizing role and compliment frequently to motivate the team players/members.Differences in use of approbation can be a result of the individual and cultural psyche of the writers, where praise and dispraise is essential for securing cooperation and promoting motivation in the Indian context. Triandis & Singelis had noted in 1998 (cited in Guodong and Jing, 2005) that in East Asian countries there is a greater eagerness to sustain harmonious relationships which is in sharp contrast to individualists in USA who focus primarily on sounding opinions. The reason thus for adopting specific forms of politeness for securing cooperation can also be conceived as a feature typical of the workings of employees in the Indian sub-continent. Emails written by women showed a higher degree of adherence to some maxims of politeness than those written by men.

The emails written by women showed hesitancy to openly contradict or disagree. The mails were more appeasing and tentative rather than firm and clear. For instance, in one of the emails soliciting cooperation, a female worker justified her request by stating, *"I would simply need 15-20 minutes of your time in filling in this questionnaire."* The finding coincides with the existing literature that women tend to justify their assertions, apologize, express support of others, and in general, manifest an 'aligned' orientation towards their interlocutors (Herring 1993:1996; Savicki et al., 1996). The findings thus validate proposition 2a, namely, *specific examples of adherence to politeness maxims are higher in women than in men.*

Violations of Maxims

An interesting finding from the analysis of the emails was the tendency or desire to bond with the recipient through written communication. A variation in this '*bonding*' technique was found in the mails written by men and women. It was found thatMen attempted 'bonding' through use of ApprobationWomen attempted 'bonding' by making *'Inane talk'*.Men in the Indian culture play the role of the head in a patriarchic society, praising and motivating, and women indulge in 'relationship building'. This cultural variant is clearly evident in the writing style of men and women in our corpus. Adoption of this tactic is in line with the nurturing role assigned to women by researchers (Tannen, 1990). An example of relationship building tactic used by one of the women as evidenced through this study is given below:*"I hope this finds you well. Haven't heard from you for some time now. Was wondering what is happening on the book front. In your last mail we had agreed on a February deadline."*While the email has clearly been written to inquire about

Figure 3. Use of tact in males and females



the adherence to a deadline, the author makes a point to inquire about the well being, instead of coming straight to the point. In our corpus, "inane talk" was used more frequently by women. In the emails sent by men, while there was adherence to the politeness principle, violations of maxims were also observed.Instances of violations were in the nature of *'sarcastic politeness'* or *'camouflaged politeness'*. In such emails, there was a dichotomy between the words used and the intent of the message. While the words indicated adherence to politeness maxims, the tone and the intent proved contradictory. For instance, *"I can't make a scrapbook as I am not comfortable with the idea. I have not done anything in this regard so far and I would be grateful if you could ask the professor to excuse me from this."* In this example, while the words "I would be grateful if you could…" suggest politeness and tact, there is a clear violation of the agreement maxim. The author is not willing to agree to the concept of writing/preparing a "scrapbook". Clearly, the word "grateful", in this context, is not being used in the literal sense. The author has expressed dissent and disagreement, albeit in a positive manner, by superficially or textually adhering to the tact principle. Our analysis revealed that such violations, though rare, were present primarily in emails written by men. This validated proposition 2b, *namely, Specific examples of violations of politeness maxims are higher in men than in women.* This is typical of the findings by researchers (Herring, 1994) that aggression is characteristic of the communicating pattern and style of men.

Clusters

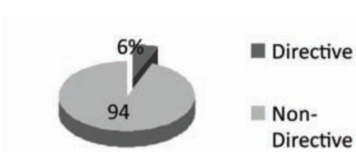
Our analysis showed that many authors used more than one maxim. In emails where the size of written communication or the number of words used to communicate a message is much less, we found more than one politeness maxim operational. For instance, in the example below multiple maxims have been used by the email writer: Agreement, Tact, Sympathy and Apology – by the email writer. *"I had submitted the hard copy in time and have also placed a soft copy on the submissions server. While I agree that this cannot serve as an excuse for the error, I sincerely request you to consider my case. May I request you to grant me an appointment for discussing the same. Once again, I apologize for any inconvenience that I might have caused."* In our study we refer to use of more than one maxim as **'**clusters**'**. Interestingly all groupings of politeness maxims had 'tact' as a necessary second part to the cluster. Both men and women used tact in combination with approbation + agreement. This finding validates the third proposition that *clusters are not gender specific, but are contingent on the needs of the situation or the organization.*

Explicit Expression of Politeness through Words (EEPW)

In the analysis of our corpus we found that Politeness Principles and maxims could well be expressed through EEPWs, which by their presence in a directive utterance change the impact of the message and make it more polite. Men and women use EEPWs differently while writing directives in emails for securing cooperation. While women made more use of EEPWs with reiterations of "please" and "kindly", men communicated the task more directly with phrases rather than EEPWs like: *"as mentioned, we are running late…" "I hope you check this mail ASAP and get things done…"* etc. While men did use EEPW like "hope", the message conveyed more a sense of urgency rather than explicit politeness. In request research, direct strategies, presence of intensifiers and aggressive moves specifying urgency have been projected as lack of politeness (Blum-Kulka, 1987). The use of intensifiers ("right now", "asap", "terribly") is typically a male writing style and has been found in our corpus as well. Interestingly we found that EEPWs were also used with clusters, thus validating the fourth proposition. This finding validates the function of task assignment emails. To secure cooperation from members in the team or the organization for accomplishing a certain task requires adherence to politeness principle, maxims and EEPWs. Use of EEPWs ensures that the request is polite and chances of refusal are minimal.Use of DirectivesDirectives were in the nature of assigning tasks. The data revealed some interesting conclusions. Men and women while assigning tasks were both found to be tactful and 'atactful'. Women however, were more tactful while assigning tasks and men more 'atactful'.

Both men and women made use of EEPWs, like "requested", "kindly", "sincerely", "please", "can we", "may we", "suggested", "grateful", etc. at the time of assigning tasks in their 'tactful' mails, but as most of the emails written by women were 'tactful' in nature, arguably the use of EEPWs by women was significant and greater. Men did not focus on being polite through EEPWs (they used EEPW only in five instances) but were more oriented towards the task at hand in their 'atactful' mails. Thus, the fourth proposition, *variations in use of politeness maxims across genders are highest in directives,* was also validated.Not only were clusters used but together with clusters EEPWs were also used. The difference is a result of the nature of cooperation that is attempted. In the case of clusters, the nature of the interaction was "task seeking", but in the case of directives, it was a case of "assigning tasks". The analysis revealed that politeness and cooperation are essential for communication, more specifically, computer mediated communication in which the physical absence of the sender and receiver begins a process rich in assumptions and perceptions. The accuracy of the assumptions and perceptions is translated into cooperation between the interactants. Use of politeness markers and indicators enhances the quality of communication making it easy to secure cooperation.

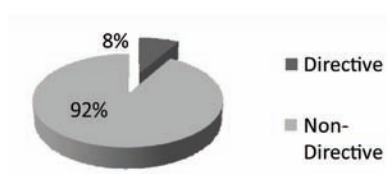
Figure 4. Directive vs. non-directive - males



RECOMMENDATIONS

Researchers (Abdullah, 2003; Markus, 1994; Waldvogel, 2007; Zmud & Carlson, 1999) are unanimous in their discussion of the use of emails as a medium of conveying rich information. However the quantum of information which is shared among the participants who deploy the electronic resources is dependent on the relationship between the participants, the manner of communication and the organization to which they belong. Abdullah (2003) in her research demonstrates that workplace emails are capable of addressing affective as well as transactional work. According to her research, emails provide writers leeway to personalize their messages.In a study on corporate exchange via email, it is difficult to assess the feasibility of adoption of "personal styles" to writing. In this chapter, we have made broad categorizations and presented the divergent communication content presented in emails across genders, with the use of politeness maxims and markers. Differences across gender style of writing emails highlight the necessity to conduct in-depth research on the workplace culture and its impact on the employees. Research supports the notion that workplaces tend to develop their own unique email style, reflecting organizational cultural differences. Fraser & Nolen (1981) argued, over two decades ago, that

Figure 5. Directive vs. non-directive – females



"no sentence is inherently polite or impolite… It is not the expressions themselves but the conditions under which they are used that determines the judgment of politeness" (p. 96). Hence it is important for organizations to introduce a culture in which politeness is grafted in the medium through which messages are transmitted.Lakoff (1990) reported women to be more expressive than men and men to use more intensifiers than women. In her study, in which instructions had been given by the instructor she found men used fewer intensifiers and occurrences of expressive and emotional language by women was lower. One of the reasons attributed by Lakoff (1990) to this finding is that when there is a code switch in highly educated professional women, they adopt a language pattern which is symptomatic of the masculine culture. With the higher growth rate of women within organizations and a change in the men and women ratio in organizations, it is important to study the language used by men and women, language used by men and women in emails and politeness constructs which are favorable across genders. Creation of a language culture which is more neutral and unisex is the most desirable strategy.Perhaps the best approach organizations can take is to create email training programs for management and staff to establish rules of "netiquette" (Turnage, 2008). There is a need to create awareness about the significance of email contact, conduct studies on what can and cannot be achieved through politeness in emails. Finally companies can advocate that if nothing else works, employees should be advised that they spare some time prior to hitting the reply button for it ensures that content is not written and sent in the heat of the moment which they may live to regret (Cleary & Freeman, 2005).

FUTURE TRENDS

As the data comprised emails collected from Indian employees working in an Indian environment, claims made and findings posited are reflective of a select audience. The research thus provides a fresh perspective on the understanding of politeness used in emails across genders through application of principles and maxims, specifically cooperative and politeness principles in India. In future it may be possible to annotate a set of principles typical of an organization (multi national) for securing cooperation – which are not bound by gender or culture but are symptomatic of the needs of the organization.Study of emails in the context of gender and politeness is still a fertile ground for future researchers. Considering the comparative novelty of the medium, the options and the possibilities of research and analysis are multiple. Future researchers can concentrate on these similarities and dissimilarities. One virgin area for research is the disparity between the intent of the sender and the message transmitted. The same can be studied with respect to emails where the internal meaning of the message or 'between the lines' message can be compared with the explicit rendering of the intent. How frequently is this means adopted? What is the impact of this dichotomy on the receiver? In the absence of the nonverbal clues is the receiver able to comprehend the magnitude of the disparity? Is the message suitably comprehended? Does the reader go by the written or the 'unwritten' message? The study can be well related to Grice's theory of conversational practices and violations of maxims.Another area of interest can be a study of 'sarcastic politeness' or 'camouflaged politeness' where the writer does not explicitly violate politeness principles. Through sarcasm or cryptic remarks which are politeness indicators accomplishes the purpose of communicating an unpleasant or unacceptable message. There is further scope of analyzing the "clustered approach" for future study of politeness in emails. More work needs to be done to ascertain if specific patterns in "clusters" can be found in email authors across the globe or if these patterns are restricted to a specific area or demographics. Researchers interested in studying gender variations in emails can extensively study the role and impact of inane talk which can be an extension on the maxims of politeness. Securing a certain level of cooperation through inane talk can well be a niche area for study in the language used by women in emails. The chapter relates to researchers and scholars as it provides considerable room for further research. Professionals too interested in comprehending the differing patterns of language in email exchange, reflected through violations or adherences to politeness across genders will benefit from a reading of the text.

CONCLUSION

Differences in communication patterns between men and women are a known fact. The extent to which the variations translate in written organizational communication, more specifically emails, and impact productivity, is a crucial issue and needs considerable thought. Essentially emails, which can also be referred to as “intellectual shorthand” are a compressed form of what may be termed as directives and non-directives. In the first category we have emails which issue orders or request for an order to be complied with. In the second category, we have emails which are more transactional in nature and do not seek compliance by ordering. The thrust of the chapter is on the process by which directives and non directives are translated in emails and across genders for seeking cooperation. Cooperation per se necessitates interaction at the level of a minimum of two interactants who move towards a common goal. In the linear progression of communication through which cooperation is sought, politeness forms an integral part of the process. Cooperation without politeness or vice versa is difficult to achieve in formal interactions.Emails are an interesting point of departure from face to face communication. While the goal in both forms is/can be the same, the difference in medium intensifies the application of principles, be it cooperative or politeness. The observation gains further momentum when we weave in the gender variable. Known differences in language styles across genders are reflected in written communication, be it in the form of simple written messages or emails. Our findings corroborate with the existing literature on higher politeness in communication patterns of women to seek cooperation and greater violations of politeness by men even in instances of seeking cooperation from peers. Instances in which there are variations in the choice of politeness maxims for cooperation across genders are highest in directives. In the chapter while variations across gender choice have been evidenced, it is majorly the need of the situation which determines the choice of either a maxim or the clusters in which maxims occur. Finally, the chapter raises several issues related to emails, gender and its effect on use of Cooperative and Politeness Principle. It provides a glimpse into issues related to:Extent to which emphasis should be laid on intent and explicit expression. Significance of use of specific/certain wordsUniversality of principles for writing emailsRelation between gender patterns in written language and emailsRole of politeness in defining the quantum of cooperation in emails.

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KEY TERMS AND DEFINITIONS

Camouflaged Politeness: There is a discrepancy between message and intent of message. When the spoken/ written words follow structural politeness, but the tone of the message implies sarcasm.

Computer-Mediated Communication: Computer mediated communication or CMC refers to human communication mediated through computer networks. Electronic mail, computer conferencing and related media all form a part of CMC.

Cooperation: Seeking compliance and reciprocating in an equal measure.

Directives: Issuing an order for completion of a task

EEPW: Explicit Expression of Polite Words. Use of structural and linguistic markers to connote politeness.

Inane Talk: Babbling; talk which is not designed for securing a result, outcome

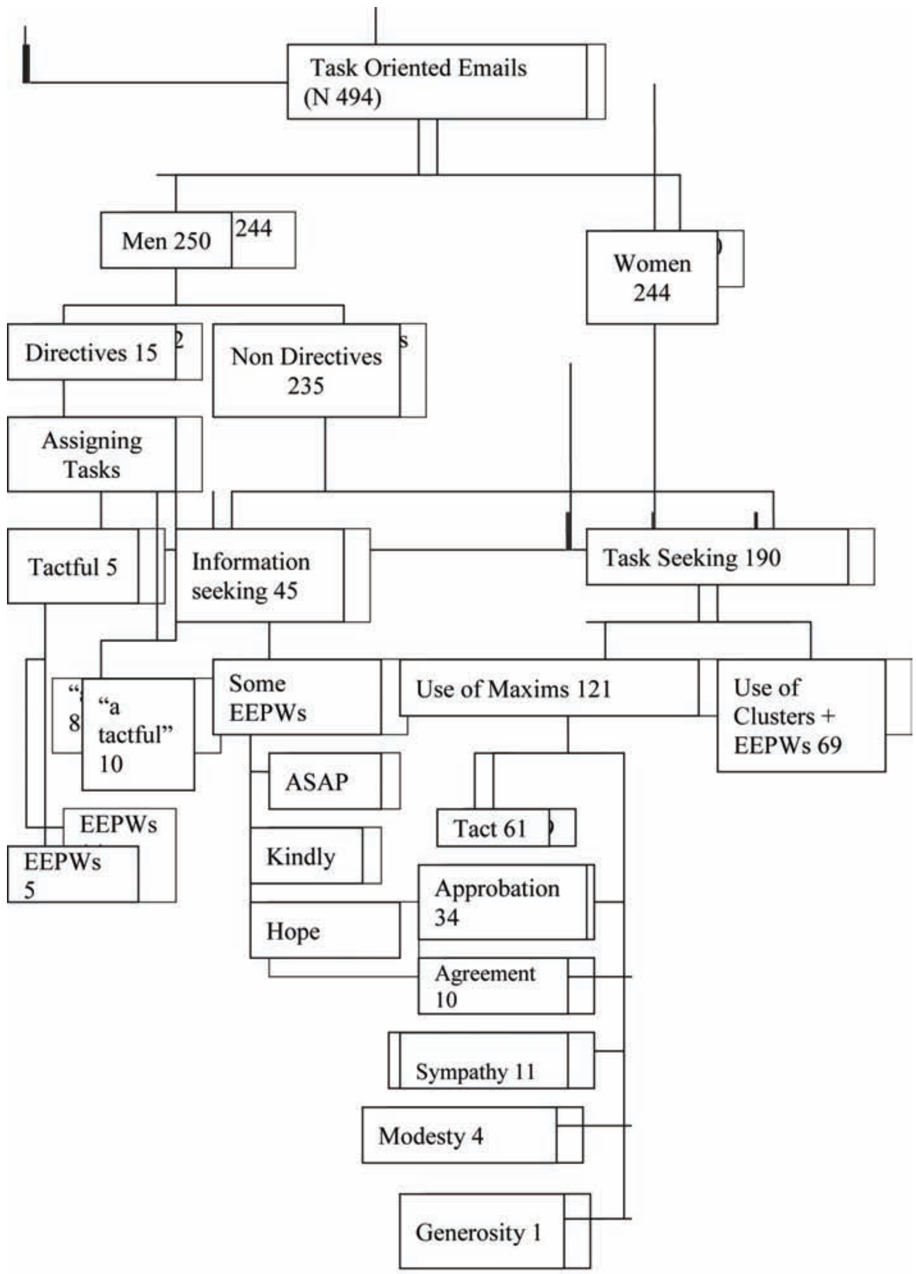
Politeness: Use of words, clauses and syntactical and semantic structures which address the positive face of the recipient.

Sarcastic Politeness: There is a variation in the text and subtext of the message. While the text is structured using polite structural and syntactical markers, the subtext implies sarcasm.

APPENDIX A

Breakup of Emails in Different Categories

Figure 6. Categories for women and men



APPENDIX B

Select Excerpts of Emails

Table 2. Emails with directive force

Directives (assigning tasks)	Males	Females
Tactful	No. of instances – 5 Example "Please let me know who would like to participate. I will be happy to provide some pointers on preparing for the debate."	No. of instances – 14 Example: "Could you please discuss the texts again with your group members and let me know the preference and a list of group members.
'a-tactful'	No. of instances – 10 Example – "Ask the student to send a passport size picture of him along with the answers either by email, or he could send it to our office."	No. of instances – 8 Example "I would like to know why the Tue review meeting on 19th was not organized."
Use of EEPW (in tactful directives)	No. of instances – 5 Example - "However, since we have an early deadline today, I would really appreciate it if you could please get this done latest by 4.00 pm"	No. of instances – 14 Example – Would appreciate it if you could please let me have your views so that I could forward the same to the PGP office.

Table 3. Emails with non directive force

Non Directives	Males 235	Females 244
Information Seeking	No. of instances – 45	No. of instances – 185
Task Seeking Use of maxims Use of clusters	No. of instances – 190	No. of instances – 37

Table 4. Information seeking emails

Information Seeking – a-tactful (EEPW)_	Males	Females
Please/Kindly/Hopefully/Gratefully	No. of instances – 45 Example – "Thank you for your reply. As requested, please find enclosed the following for your use."	No. of instances – 185 Example – "Kindly do let me know if you would be interested to review any of these books."

Task Seeking (Use of Maxims)	Males 121	Females 108
Tact	No. of instances – 61 Example "Though the CP system does encourage people to talk in class, still it cannot supplement a full course and concentrated effort."	No. of instances – 59 Example "I would simply need 15-20 minutes of your time in filling in this questionnaire."
Approbation	No. of instances – 34 Example "The material reads well and is full of information that professionals and students would find very useful."	No. of instances – 19 Example "You were easily the most impressive and most effective of the faculty who spent time with us during the program."

Table 5. Task seeking emails with use of politeness maxims

Task Seeking (Use of Maxims)	**Males 121**	**Females 108**
Agreement	No. of instances – 10 Example “Yes, the February limit seems fine”	No. of instances – 12 Example “Life has become, as you rightly said one big meeting deadlines issue.”
Sympathy	No. of instances – 11 Example “Now that you mention it, I do remember your name (and IIM) from the program. Israel (not only Eilat but also Tel Aviv, where I spent a night after the conference) was fabulous—too bad you missed it.”	No. of instances – 11 Example “I am saddened by the devastation that your country and so many others have suffered.”
Modesty	No. of instances – 4 Example “In case there are some concerns pl feel free to share them with us so that we can improve on the quality of the program”	No. of instances – 3 Example “Hence it [my writing] is not of best editorial quality”
Generosity	No. of instances – 1 Example “If you have any queries or need any additional information please feel free to contact me.”	No. of instances – 4 Example “I m ready to help in any case”

Table 6. Task seeking emails with use of clusters

Task Seeking Use of Clusters	**Male 69**	**Female 77**
EEPW + Apology	No. of instances – 5 Example	No. of instances – 3 Example Firstly, I am sorry for the inconvenience caused. If it’s okay with you we can meet at 8.30 today at CR-4.Just mail me and let me know if it’s convenient for you. Thank you for considering my request.
EEPW + Generosity	No. of instances – 0 Example	No. of instances – 2 Example Please do let us know if there is anything that you would require in terms of multimedia projector etc.
Apology + Tact	No. of instances – 16 Example Sorry to have read the message late	No. of instances – 10 Example I apologize for this inconvenience
EEPW + Tact	No. of instances – 10 Example It is hence suggested to the Community Members to kindly use the Residential Gate after 6 P.M. to avoid inconvenience.	No. of instances – 12 Example In the meantime we will be extremely grateful if you do not follow up with any further sales activities and approaches.
Apology + Approbation	No. of instances – 0	No. of instances – 4 Example Thank you for the update. I apologize for the delay in response.

continued on following page

Table 6. continued

Task Seeking Use of Clusters	Male 69	Female 77
Bonding + Inane Talk	No. of instances – 15 Example Nice to see your mail. I was sure the programme would be good.	No. of instances – 35 Example Do get in touch next time you are in Ahmedabad.
Approbation + EEPW	No. of instances – 0 Example	No. of instances – 8 Example You have been extremely kind and understanding
Approbation + Agreement	No. of instances – 5 Example Fine, I look forward to hearing from you about your availability	No. of instances – 0 Example
EEPW + Agreement	No. of instances – 1 Example	No. of instances – 1 Example
Inane Talk + Tact	No. of instances – 3 Example Good to hear from you after a break. Happy to note that you are intensely pursuing your research work. Research work has its challenges in getting timely and relevant data .	No. of instances – 0 Example
Agreement + Tact	No. of instances – 3 Example Ok. Keeping this point in view, please do the needful.	No. of instances – 1 Example Thank you so much for your mail. We will wait for your response. Look forward to further interaction with you.
Altruistic Tact/ Humility	No. of instances – 1 Example BTW, when can I expect to receive the cover page designs & info on number of pages.	No. of instances – 0 Example
Sarcastic Politeness	No. of instances –1 Example Sorry but i do not understand what is this persuasion scrapbook. Can you define it because i do not even start to work on this ? Thanks you very much.	No. of instances –0 Example
Bonding + Agreement	No. of instances – 0 Example	No. of instances – 1 Example Yes, that will be fine. Oh, thanks for including me in all the mails.

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Table 6. continued

Task Seeking **Use of Clusters**	**Male 69**	**Female 77**
Agreement + Tact + Sympathy + Apology	No. of instances – 1 Example I had submitted the hard copy in time and have also placed a soft copy on the submissions server. While I agree that this cannot serve as an excuse for the error, I sincerely request you to consider my case. May I request you to grant me an appointment for discussing the same. Once again, I apologize for any inconvenience that I might have caused.	No. of instances – 0 Example
Approbation + Tact	No. of instances – 8 Example Thanx radhika for such an informative mail.I will definitely try and contact Krishnendu, if he will be helpful then I will clear many of my doubts.	No. of instances – 0 Example

Chapter 26
Users' Relevance on the Web

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ABSTRACT

In this chapter the author analyzes, from a cognitive pragmatics point of view and, more specifically, from a relevance-theoretic approach, the way Internet users assess the qualities of web pages in their search for optimally relevant interpretive outcomes. The relevance of a web page is measured as a balance between the interest that information provides (the so-called "positive cognitive effects" in relevance theory terminology) and the mental effort involved in their extraction. On paper, optimal relevance is achieved when the interest is high and the effort involved is low. However, as the relevance grid in this chapter shows, there are many possible combinations when measuring the relevance of content on web pages. The author also addresses how the quality and design of web pages may influence the way balances of interest (cognitive effects) and mental effort are assessed by users when processing the information contained on the web page. The analysis yields interesting implications on how web pages should be designed and on web usability in general.

INTRODUCTION

According to Sperber and Wilson's (1986; 1995) *Relevance Theory*, human beings have developed a cognitive ability to maximize the benefits deriving from the processing of inputs when they engage in interactions with the surrounding world, either through conversations with other people or through the processing of documents such as the vast amount of web pages contained on the Internet. This claim is mainly applied to *ostensive communication*, in which the identification of underlying intentions and attitudes and the mutual awareness of this identification play a major role in the eventual success or failure of interactions

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with other people, but this cognitive ability also applies to cognitive processing in general and to people's overall processing of inputs intended to improve their picture of the world (including the information that simply accesses us from the surrounding world without a prior intentionality and also including our own thoughts, some of which are more likely to be entertained than others in a particular situation). Indeed,

as a result of constant selection pressure towards increasing efficiency, the human cognitive system has developed in such a way that our perceptual mechanisms tend automatically to pick out potentially relevant stimuli, our memory retrieval mechanisms tend automatically to activate potentially relevant assumptions, and our inferential mechanisms tend spontaneously to process them in the most productive way. (Wilson & Sperber, 2002a, p. 254)

This chapter aims at applying this claim to how web pages created by Internet users are interpreted by other users (that is, in user-to-user communication through the web page). In this sense, it should be noted that relevance theory has been applied mainly to the output of search engines and information retrieval systems (e.g. White, 2007a, b). In this case, what is analyzed is the users' assessment of relevance when a computer system displays a number of results from a typed query. This is system-user interaction and not user-user interaction, and hence not a type of communication that cognitive pragmatics would cover. The analysis provided here goes beyond this initial application of relevance theory by focusing on the quality of users' interpretations of web content that other users upload on the Internet with an underlying intention (for example the intention to share this information with other users) and often (but not necessarily) with the prediction of a specific interpretation of this web content.

BACKGROUND

Relevance is an essential aspect of human cognition and sought in interactions with people and the surrounding world. This is mainly the reason why there are two *principles of relevance*. Initially, Sperber &Wilson proposed one *principle of relevance* to account for the fact that an act of ostension carries a guarantee of its eventual relevance, but in the Postface to the second edition of their book *Relevance* (1995, pp. 260ff.), they propose that we can distinguish a broad a *cognitive principle of relevance*: "human cognition tends to be geared to the maximization of relevance", as well as a narrower *communicative principle of relevance*: "every act of ostensive communication communicates a presumption of its own optimal relevance", 1986, p. 158), the latter being the main focus of analysis within pragmatics but one which, in reality, abides by the same overall rules that we follow when interacting with the surrounding world. An ostensive stimulus (in which both sender and hearer are aware of the sender's underlying intentionality to communicate some information) creates a presumption of relevance, which addressees expect to be *optimal* (though not always so, unfortunately). The notion of optimal relevance indicates that the balance between possible interest in exchange for the demanded effort is highly satisfactory. But the *cognitive principle* is important too, since it stresses the fact that we are biologically geared towards processing the most relevant inputs available, including verbal utterances, nonverbal communication and web pages. Besides, it is this evolved disposition that allows for the prediction of the mental states of others, which is crucial in human communication (see Yus, 2006, section 2.3).

The aforementioned *communicative principle of relevance* predicts a basic procedure for users when they make hypotheses about contextual extensions required for the interpretation of the content of a web page and also about and the hypothetical reward: to consider interpretive hypotheses in order of accessibility (following a path of least effort) and to stop when they arrive at an interpretation which satisfies the expectations of relevance raised by the content of the web page. Relevance, then, is a matter of balance between the interesting information that the web page might provide (in terms of so-called "positive cognitive effects") and the mental effort that obtaining this information demands. On paper, optimal conditions of relevance would derive from a combination of the highest possible number of cognitive effects in exchange for the least mental effort, but in reality humans are ready to devote supplementary cognitive resources if, in return, they expect supplementary cognitive effects to offset this effort.

The definition of relevance of an input to an individual (e.g. a web page) involves two clauses:

a. Everything else being equal, the greater the positive cognitive effects achieved in an individual by processing an input at a given time, the greater the relevance of the input to that individual at that time; and
b. Everything else being equal, the smaller the processing effort expended by the individual in achieving those effects, the greater the relevance of the input to that individual at that time. (Wilson & Sperber, 2002b, p. 602)

In theory, the balances of these clauses may be explained both in *quantitative* and *qualitative* terms. There has been a lot of discussion on whether relevance theory can provide a "purely quantitative" explanation of how relevance is measured. Wilson & Sperber (2004, p. 610) explicitly argue for a qualitative notion of relevance when they state that "while quantitative notions of relevance might be worth exploring from a formal point of view, it is the comparative rather than the quantitative notion that is likely to provide the best starting point for constructing a psychologically plausible theory". To support this claim, they stress that it is highly unlikely that individuals have to compute numerical values for effort and effect when assessing relevance "from the inside". This computation would be too effort-demanding. Besides, it is really difficult to assess "from the outside" issues such as the number of contextual implications, the strength of implications, the level of attention, etc., but it is easier to conclude which competing interpretations are more likely to be selected (and why) by resorting to a qualitative notion of relevance. Also, in Sperber &Wilson (1986, p. 129-132), they also argue that it seems preferable to treat effort and effect as non-representational dimensions of mental processes: they exist and play a role in cognition whether or not they are mentally represented; and when they are mentally represented, it is in the form of intuitive comparative judgments rather than absolute numerical ones. The same is true of relevance, which is a function of effort and effect.

However, for an explanation of the processing of information that is obtained from different pieces of discourse that are link-related and on several web pages (typical in today's use of Internet), we can still predict two types of relevance conditions involving cognitive effects and processing effort, one *quantitative* (condition b_1) and one *qualitative* (condition b_2):

Condition (a): Information from link-related discourses on the Net is relevant to an individual to the extent that the cognitive effects achieved when it is optimally processed are large.

Condition (b_1): An assumption is relevant to an individual *to the extent that the number of clicks that the user has to make in order to obtain these effects is small*.

Condition (b_2): An assumption is relevant to an individual *to the extent that the level of coherence obtained from linking different bits of information is optimal despite the non-linear arrangement of the linked texts*.

Certainly, the main complaints of web users refer to the difficulty in obtaining the expected information, to how tiring it is to click on links that lead to irrelevant information, to the feeling that certain chunks of discourse have little to do with previously processed pieces of text. This difficulty -related to unnecessarily increased processing effort- can be measured in terms of number of clicks but also in the maintained or missing coherence between the different pages or texts that the user accesses, although this measurement is indeed difficult (Smith et al., 1997, p. 69). No doubt, the user will expect that newly accessed chunks of text will add information or combine with information already processed in relevant ways, that is, information that will combine in relevant ways with the information that has already been accessed and is still active in the user's short memory store. Moreover, the users will get angry if a substantial number of clicks does not lead them to the expected information, to the extent that the users might even end up lost after sustained incoherent clicks, not really knowing why they ended up on a particular web page.

ISSUES: THE RELEVANCE GRID

When is the content of a web page relevant to the user? According to relevance theory, when the content alters the user's *cognitive environment* is positive ways. Cognitive environments are made up of all the information that is *manifest* to the user in a specific context. What is 'manifest' is what the user is capable of inferring or capable of perceiving, even if he or she hasn't done so yet and the sum of all the manifest assumptions is the user's *cognitive environment*. A set of assumptions manifest to several users constitutes their *shared cognitive environment*. When it is manifest to all the users who are sharing a cognitive environment that they share it, this is a *mutual cognitive environment*, made up of mutually manifest assumptions. Communication is a matter of making certain assumptions mutually manifest to both communicator and addressee and of using these assumptions to alter the interlocutor's cognitive environment in relevant ways (for instance, by combining with information that is already in the user's cognitive environment to produce certain relevant conclusions). In fact, rather than being a pre-conceived notion during communication, interlocutors often resort to communication as a means to highlight, at a certain point during the conversation, that certain information is mutually manifest. Successful communication, then, foregrounds mutuality, rather than being built on a certainty of mutuality.

When surfing the Net, users will aim at enlarging or updating their own cognitive environments. There is, of course, no duplication of cognitive environments in the users, since each user has a very personal array of stored (i.e. encyclopedic) and manifest information that they can rely on as "context" when interpreting the new content provided on the web page. However, designers of web pages and those who fill them with content do make predictions on the quality and quantity of the users' cognitive environments and design the pages according to the likelihood that the content itself and how it is arranged and link-related will end up being relevant to a majority of users.

Additionally, we could predict, on paper, that the most relevant information on a web page will be the one that systematically provides the user with the largest possible effects in exchange for the least mental effort, as proposed in the aforementioned clauses of relevance. In reality, though, users will readily invest a considerable amount of mental effort in processing the content of the page if the eventual reward, in terms of larger amount of cognitive effects, offsets this effort. Obviously, the opposite will also apply: users will be utterly disappointed if the investment of effort yields no positive outcomes, either in terms of number of clicks required to get the desired information (*quantitative approach* to users' relevance) or in the level of inter-link coherence between chunks

Table 1. The relevance grid

case	positive cognitive effects	mental effort demanded	resulting relevance
1	high number	high	positive for user
2	high number	high	negative for user
3	high number	low	positive for user
4	high number	low	negative for user
5	low number	high	positive for user
6	low number	high	negative for user
7	low number	low	positive for user
8	low number	low	negative for user

of texts (*qualitative approach* to users' relevance). And in-between these possibilities there are more possible combinations of cognitive effects, mental effort required and quality of resulting relevance, as shown in table 1. This *relevance grid* shows that there is a good number of possible combinations and there would also be different degrees inside each case. On paper, positively relevant outcomes in the grid occur when the processing of an input in the context of existing assumptions improves the user's knowledge. And this improvement can take place not only by adding a new piece of information to the user's cognitive environment, but also by revising the user's existing assumptions, or yielding conclusions not derivable from the new piece of knowledge alone or from existing assumptions alone.

Case 1: *High number of cognitive effects, high mental effort, positive relevance*

Often the user will be willing to invest a great deal of mental effort. In this case, the reward, in terms of cognitive effects, offsets the effort. An example would be a user who is afraid of having cancer and is reading a long article on that topic, hoping to get relieved by the information, no matter what mental effort is involved in its processing.

Case 2: *High number of cognitive effects, high mental effort, negative relevance*

If cognitive effects are not "positive" to the user, the high mental effort invested will yield negative relevance outcomes. This may happen when the users access a lot of information on the Net that is costly in terms of effort and, nevertheless, does not interact positively with their personal cognitive environments, thus producing irrelevance.

Case 3: *High number of cognitive effects, low mental effort, positive relevance*

This is the prototypical case of optimal relevance as envisaged by relevance theory. The user obtains a lot of positive cognitive effects but the mental effort expended remains low. In the case of web page processing, a design with an optimal organization of links that effortlessly leads to the important information and whose level of coherence remains high in the browsing or navigational process, will fit this case. And it also fits the basic claim in relevance theory that humans are geared towards maximizing relevance, in the sense that we are designed to look for as many cognitive effects as possible for as little processing effort as possible. Web pages that offer this trade-off between high interest and least mental effort are bound to be relevant.

Case 4: *High number of cognitive effects, low mental effort, negative relevance*

This case fits the typical situation in which the user can effortlessly gather a lot of information from the Internet but it does not interact positively with the user's cognitive environment. In theory, relevant (i.e. *positive*) cognitive effects, are generated by strengthening an existing assumption, by weakening or eliminating an existing assumption, or by introducing a new assumption that combines with context to yield relevant conclusions. At this age of "information overload", it can be predicted that simply browsing through a lot of web pages and accessing the information therein will not guarantee that the processing of that information will eventually be relevant to the user.

Case 5: *Low number of cognitive effects, high mental effort, positive relevance*

This case is, obviously, difficult to account for in relevance-theoretic terms, since it is very unlikely that a certain type of information whose processing demands a high level of mental effort and provides few cognitive effects in return will end up resulting relevant to the user.

Case 6: *Low number of cognitive effects, high mental effort, negative relevance*

On the contrary, this case is typically referred to as the canonical situation of irrelevance, in which the user invests a high amount of mental effort to process information on the web page that yields few cognitive effects in return. The predictable outcome is irrelevance.

Case 7: *Low number of cognitive effects, low mental effort, positive relevance*

This is one of the most puzzling cases in effects/effort/relevance combinations. Apparently, it can be predicted that no user will be willing to engage in the processing of information that demands little or no mental effort but, at the same time, produces no cognitive effects. But one of this combination has spread recently (see Yus, 2008) producing a minimally satisfactory level of relevance to the users. This "little interest in exchange for little effort" is the case of very popular web sites that are very boring but, for some reason, get thousands of visits every day. These include using a webcam to watch how a Cheddar cheese matures (in http://cheddarvision.tv/) or how hens move about on a farm and lay eggs (in http://www.hencam.co.uk). In all of these cases, the effort demanded to obtain the information is minimal (or zero), but the information provided is also minimal. It may be, as suggested metaphorically by Burkeman (2007), that we suffer a lag in which the slow horse of human comprehension is unable to keep up with the fast horse of the information that is available on the Net, and maybe dull web pages are popular because they are a rebellion against information overload, a space for our slow horses to graze. But this trend is also a challenge for a relevance-based account of human communication, since the two conditions of relevance do not predict such unusual balances.

Case 8: *Low number of cognitive effects, low mental effort, negative relevance*

This case may also be found in the processing of certain types of information on the Net. Although the mental effort demanded is not high, the number of cognitive effects is also low, which triggers irrelevant processing outcomes.

RECOMMENDATIONS

To design or create a web page is to predict that its users will have certain processing needs, that they will resort to certain interpretive paths, that the way information is presented will be positively valued, etc. Indeed, according to the *cognitive* *principle of relevance* (Sperber &Wilson, 1995, pp. 260-266), the human cognitive system tends to allocate attention and processing resources so as to maximize the relevance of the inputs it processes. Therefore, Internet users will tend automatically to pick out potentially relevant assumptions that can be obtained from web pages, and will tend to process them in the most productive way. The role of web page authors and designers will be, in short, to aim at predicting what sources of information the users are likely to attend to, what contextual assumptions they are likely to use in processing it, and what conclusions they are likely to draw.

Sperber &Wilson (2002, pp. 14-15) acknowledge this ability to predict the mental states and inferential patterns of others as part of the general human tendency to maximize relevance. Specifically, speakers (and web page authors) can predict:

a. Which stimulus in an individual B's environment is likely to attract B's attention (i.e. the most relevant stimulus in that environment). In the context of web page processing, these predictions would be interpreted as the author/designer expecting that a particular web page is bound to attract the user's attention and, inside the page, that certain content is likely to interest the user or lead the user to click on the page links to obtain additional information or complete the one that has just been accessed.
b. Which background information from B's memory is likely to be retrieved and used in processing this stimulus (i.e. the background information most relevant to processing it). In the context of web page processing, authors/designers will predict that certain information will already be available to the users as background information (*manifest* information belonging to their *cognitive environments*) and that the information contained in the web page will interact fruitfully with this manifest information.
c. Which inferences B is likely to draw (i.e. those inferences which yield enough cognitive benefits for B's attentional resources to remain on the stimulus rather than being diverted to alternative potential inputs competing for those resources). Web page design and processing would follow the same prediction and drawing of inferences in search for the most relevant assumptions available.

Hence, users who create or design a web page make predictions of relevance for their eventual readers, which include predictions of manifest information, of inferential steps and of relevant outcomes of combinations of new and background information. However, even if some information is likely to be relevant, this positive outcome is not fully guaranteed. Indeed, authors and designers predict which information and which way of presenting it is bound to produce relevant outcomes in as many readers as possible, but these predictions are never fully accurate, since cognitive environments differ drastically from one user to another. Nielsen (2008) explains faulty predictions between authors and users in terms of three possible levels of relationships between the designers of web pages and their prospective readers. Firstly, when *the designers are the users*, they can make the page as obscure, jargon-filled, as they want. If no one else needs to understand the content or design of the page, then "you can safely toss the usability book out the window". Secondly, when *the designers understand the product*, simply because the designers use the web pages they probably assume that they can accurately predict the users' needs and optimally relevant information. In reality, there is normally a gap between designer's predictions and users' actual needs. Thirdly, when *designers design for a foreign domain*, they expect a level of domain knowledge by expert users which they often lack.

Livingstone (2007: 167) also points out that web pages, which are still mostly text-based, are open to interpretations not necessarily anticipated by the authors. She comments on a web page for adolescents -*The Epal Homepage*- whose creators, predicting optimal interest, designed it with a Lara Croft-like character-mediated interface. Against the predictions, though, initially the teens were appreciative, but did not find the page too cool or sophisticated. To make matters worse, after the initial character-mediated interface, subsequent pages were loaded with plain information without any cool look. Hence, the home page was not relevant against the designer's predictions and the subsequent pages were irrelevant, as anyone could have predicted.

In sum, designers and authors of web pages can (and have to) predict the users' needs and relevance-seeking actions when surfing the web, but these predictions can never be fully accurate given the vast variability of cognitive environments and levels of relevance satisfaction that can arise among users. It is more realistic to assume that some designs or web content will satisfy some users' while frustrating others. An example is described in Wu et al. (2008). They assessed the value of categories and directories provided by web designers and their effect on users' satisfaction. Indeed, on paper these categories and directories are useful for browsing but, at the same time, users need to be able to move freely among them, without being imposed a predetermined reading path. These authors prefer a *multi-faceted categorization system* (a flat structure of categories treated as equal and independent), which allows users to move freely, an environment for dynamic, flexible and spontaneous information seeking. In relevance theory terms, this arrangement reduces the "intended" interpretation by the maker of the page, and leaves web page communication to simply making manifest information, and the user takes full responsibility of reading paths and eventual levels of relevance obtained. An immediate "backlash" of this design would be the situation in which the page makes manifest more information than the users can handle, thus reducing eventual relevance by increasing processing effort (perhaps due to reduced inter-link coherence between chunks of content accessed through multiple and parallel categories). Wu et al. (ibid.) propose some form of control over browsing options, but with an emphasis on predicted user needs, so that attributes deemed more relevant by users should be more accessible on the browsing interface:

Given that judgments about attribute relevance are highly context-dependent, user-centred organization of attributes should reflect such judgments. Multi-faceted categorization can still remain flat to support multi-dimensional browsing, which allows users to navigate information in any way they choose. At the same time, it would be easier for users to navigate the browsing interface because its organization matches users' cognitive structure of the information at hand. (2008, p. 2874)

Again, these judgments can only be partly predicted due to the immense variability of users' cognitive environments. This is clear in the two types of interface that these authors review: on the one hand, in the *hierarchical structure*, there is a pre-conceived subordinate relationship between elements, but users may fail to see the underlying structure providing coherence to the whole site, even though they are guided in their navigation:

A hierarchical structure would impose an unnecessarily rigid and arbitrary subordinate relationship on the attributes in order to determine the facets' levels in the hierarchical tree. If the subordinate relationship defined by the web developer is different from that of the users, the latter may have difficulty finding the information they need; or they may need to browse the hierarchy up and down several times before finding the path that leads to the required information. (2008, p. 2875, slightly modified)

On the other hand, *multi-faceted categorization* adopts a flat structure treating each option as independent and equal. This provides users with total navigational freedom but they may end up lost in the vast array of options and paths that are available, thus reducing relevance.

Additionally, an in-between possibility can be proposed: the one in which web designers provide readers with a graphical representation of the entire node system, a kind of *map of the site* and readers click directly on a selected area of that map instead of clicking on a link in the text itself (Engebretsen, 2000). In this way, the reader can have a clear picture of the *intended* hierarchical organization of nodes but, at the same time, be fully responsible of where to click and which navigational path to follow.

Web designs and choice of information content are, consequently, subject to constant hypotheses about eventual relevance for users. To these hypotheses, we must add other factors (e.g. technological) that may add to users' dissatisfaction with the way information is presented and obtained. For instance, Rajani and Rosenberg (2000) list a number of what they call *computational issues* of web usability that may play a role in (un)successful browsing: (a) *Maintenance*. Once posted, a page has to be frequently maintained to incorporate the ever-changing web technology (this demands, in parallel, the user's update on how to use this technology, and relevance would depend on how skillful the user becomes). (b) *Speed of access*. Graphic images and flash animations may cause slower access to the page and hence user dissatisfaction at not obtaining what they need in due time. A balance between speed and design for usability should be established. (c) *WYSIWYG* ("what you see is what you get"). Although nowadays what one sees on the page is, supposedly, what the author designed, there are different browsers, different screen settings, different graphics cards and different computers that may produce unwanted visual displays. (d) *Navigational aids*. These include bars and frames, content indexes, or site maps and their use to aid navigation around a complex site that spans over many pages is essential in helping users find their way and reduce processing effort that can affect eventual satisfaction with the page. (e) *Anonymity*. Web designers are essentially designing for an 'unknown' audience. It is really hard to estimate cognitive environments and which new information will interact fruitfully with these environments. (f) *Design traits*. These include clarity, accessibility, consistency, simplicity, navigability, integratability, feedback, informativeness of displays and speed. (g) *Limitations of html.* HTML is the language of the web, but it has lots of design limitations, for instance when making complicated tables, frames and tags. Of course, html is an non-stop evolving language, so new capabilities are constantly added that make designing a more effortless venture.

Moreover, the picture becomes even more complicated when we take into account the fact that successful web communication is not only a matter of web designers and addressee users, but also involves other people, all of which have their own ideas on how to make the page relevant (often wrongly, as stressed already). An example is found in Chevalier and Bonnardel (2007), who explicitly differentiate -for e-commerce sites- between the *designer's clients* (the persons who own the web site and fund its development) and the *site's future users* (the future customers of the web site). Both may place the emphasis on different areas of page design, with substantial effects on the (ir)relevant outcome of page processing. In the case, for example, of a website selling cars, "client-oriented emphases" would include (a) site originality (in comparison to other competing car dealers), (b) branding usage (respect characteristics of the dealer's brand), (c) sales improvement (information must lead to an increase in sales), and (d) site structure and content. In contrast, "user-oriented emphases" would include aspects of general interest for users. Also among these emphases, we would include those concerning usability -that Chevalier and Bonnardel (ibid.) call *ergonomic constraints*- such as (a) the aesthetics of the site, and (b) the attractiveness of content. Predictably, in their study these authors concluded that designers "focused mainly on the respect of client-oriented constraints in their web sites. In other terms, when they had to create the web sites, designers respected very few user constraints that they had articulated. Consequently, their web sites were not satisfying in terms of usability" (2007, p. 2459).

Rajani and Rosenberg (2000) conclude in their research that interesting information leads users to stay looking at a page, but more so if that information is coupled with a simple page layout, a 'light' and pleasant color scheme and clear navigational aids: "If navigational aids were confusing, they would spend more of their time planning how to move on as opposed to concentrating upon content. It was as if they felt 'trapped' or 'imprisoned' within the page". Counter-intuitively, the typical assumption that sites which are rich in color and animation and with multimedia applications are preferred by users was not supported in this study.

Abels et al. (1998) also list a number of suggestions for web design based on several criteria: (a) *use* (the page should be easy to use, with available navigation aids, etc.), (b) *content* (information should be updated and useful, concise, non-repetitive, not superficial, etc.), (c) *structure* (with an intelligible, straightforward organizing scheme, with text broken into appropriate and well-labeled sub-sections, etc.), (d) *linkage* (there should be integration with relevant information contained in other sites, and all links should function), and (e) *search* (there should be a "search support" on the page that provides relevant results with minimal effort).

Fuccella and Pizzolato (1998) opt for a three-step approach to web design intended to integrate user-centered design into the overall web page design process. Step 1 involves *audience definition*. The easiest way to gather data on future readers of the page is to give out surveys. Step 2 refers to *requirements and task gathering*, basically meaning "to gain a better understanding of the web site content". Finally, step 3 has to do with *information organization*. At this stage, users are called upon to organize and structure the web content collected in the previous step.

Finally, Lim (2002) prefers to list a number of pieces of advice for web designers: (a) *Follow a sequential progression*: "information on websites unfold in a sequential manner where one hyperlink is an elaboration of a previous interconnected hyperlink and so on" (p. 165). Users who are accustomed to this sequential progression of information may become frustrated when websites do not adhere to it, since mental effort is uselessly increased without an offset of larger cognitive effects. (b) *Mimic real-life scripts*. "As human beings, we understand our environment and remember discernable trends. We then utilize this knowledge to make assumptions about what will happen next." (p. 165). In the same way as relevance is sought in every interaction with the surrounding world, be it verbal, visual, intentional or otherwise, also web users expect certain patterns to be repeated or to fit similar situations. These are pieces of information that we store as *schemas* or *scripts* and we use by default unless context favors (or forces) an access to different pieces of information. When accessing a web page, scripts and stereotypes are also at work. (c) *Provide visual indicators*. Especially for e-commerce, it is useful to provide visual information regarding the products available. (d) *Place functionality above aesthetics*. Again, this is a priority for shopping sites, whose main aim is to get as many purchasing clicks as possible. For instance, it is more important to make the functions of links and buttons clear than to make them visually appealing. In contrast, Mitra et al. (2005) underline the relationship between the attractiveness of a web page and perceived usefulness. Attractiveness also seems to play a role in perceived ease of use, enjoyment and actual use. Nevertheless, they also stress that the current trend in web design is to opt for simplicity and acknowledge that the eventual use of information crucially depends on how it is presented to the user and on the context of the user's need for information. For instance, in the academic world content is more important than how content is presented and if the user is not browsing but really scanning for information, then information plays a much greater part than the mode of presentation.

CONCLUSION

Web page communication is a matter of designers or authors predicting which information is bound to interact positively with the eventual readers' cognitive environments and achieve a satisfactory level of relevance. On paper, to generate a relevant interpretive outcome, the authors or designers will aim at favoring the highest possible reward in terms of positive cognitive effects in exchange for the least effort generated during processing due to the assessment of link-mediated chunks of discourse and the construction of inter-link coherence. Between this optimal level of relevance and the opposite, in which few or no cognitive effects are obtained to offset a high level of mental effort, there can be a lot of possibilities, as the so-called *relevance grid* has shown.

Although no general design suggestions can be made, due to the great level of variability in the user's cognitive environments, informational needs and background information, authors or designers can nevertheless predict that a certain type of information design or how information is presented will probably yield the expected results in terms of usability and loyalty to return to the web page in the future.

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KEY TERMS AND DEFINITIONS

Cognition: Mental activity intended to improve the person's information about the world. It mainly deals with getting knowledge, including perception and reasoning.

Cognitive Effects: Inferential outcomes of interpreting other people's stimuli (e.g. an utterance). These can be positive or detrimental to the person's search for relevance.

Mental Effort: Amount of cognitive resources that have to be devoted to obtaining relevant outcomes from processing inputs.

Pragmatics: Part of semiotics that deals with how people interpret utterances in a context.

Relevance Theory: A cognitive pragmatics theory of communication based on people's assessment of relevance when understanding utterances.

Web Page: Verbal, visual or multimodal html-based pages found on the Internet.

Web Usability: Qualities of a web page that help users get the information therein more easily and fruitfully.

Chapter 27
Inferences in Discourse Comprehension of E-Mails

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ABSTRACT

This chapter attempts to examine the inferences in the discourse comprehension of electronic mail which has become one of the fastest means of communication around the world. The data corpus was got from one hundred e-mails from eight different faculties in the academic community of Obafemi Awolowo University, Ile-Ife, Nigeria. From the analysis, the authors noted that, inferencing enables the reader to interact with the text and its contextual elements thereby supplying the missing link between the text and the context. The analysis also revealed that the interpretation of implicit information requires inferencing while that of explicit information does not. It was also noted that code-switching aids inferencing in e-mail. The chapter also noted the implications of this growing medium of communication on students, researchers, curriculum planners and reading specialists.

INTRODUCTION

E-mail communication, being one of the fastest means of communication has become the most commonly used in organizations, companies, academic environment, business centres, etc to give and receive information, share information for personal and social needs and advertise wares etc. Among academics in higher institutions in Nigeria, e-mail and instant messaging have become the easiest means of communicating with one another within and outside the country. Before the advent of the e-mail, most of the information meant for the generality of Obafemi Awolowo University (OAU) community were pasted on notice boards or printed as short notices and placed in people's pigeon holes in various departments. With the emergence of electronically mediated communication, OAU developed a website and e-mail services and encouraged members of the academic community (academics, administrators, students) to have e-mail addresses of their own. Different departments also developed

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their own websites through which information could be received and disseminated.

The recent developments in communication in general have drawn attention to e-mail and fax which have taken over as the most common forms of exchanging written messages. Many scholars have mentioned the need to research into the effects of the new technological developments on the social, business and academic lives of people in general (Eustace, 1996; Gains, 1999). In an attempt to examine how academics produce, interpret and comprehend e-mail texts, the following questions readily come to mind: Are there differences in response to e-mails? Are there inferences that could have been made that were not made which led to late or no response to mails?

This work therefore sets out to;

a. Identify the explicit and the implicit information in an e-mail and
b. Examine the kind of inferences that can be drawn from the interaction between textual and contextual elements of a text.

BACKGROUND

Scholars such as Gimenez 2000 & Louhiala-Salminen 1996, who have conducted research on different forms of electronically mediated communication, have noted some changes in people's written interpersonal communication.

The Economist (1996) claims that e-mail combines features of spoken discourse (its nature) with those of written discourse (its representation) to be transmitted or received by a computer and this gives it a semi-formal nature which is convenient and acceptable to many people.

In an attempt to draw attention to the importance and usefulness of e-mail, Louhiala-Salminen (1996) surveyed eleven well-known ELT textbooks and notes that only two of the textbooks made reference to e-mail. Working on the conventions of business letters, fax and e-mail, Louhiala-Salminen (1999) notes that the conventions of business letters are well established while those of fax and in particular e-mail are not stabilized which makes fax and e-mail to have more variation in language use. Louhiala-Salminen claims that writers are less constrained to conform to certain standards with electronic mail and that it is possible that where there is an established relationship between correspondents, the register will be personalised. Louhiala-Salminen (1999) also notes that one of the reasons for the informality of fax and e-mail is the context dependence of these types of messages. To Louhiala-Salminen, fax and e-mail are often less explicit than letters because it is assumed that the reader already has some background knowledge about the situation. Working on three distinctive features of email messages i.e register, style and contextual aspects, Gimenez (2000) claims that 'the register is simple and has straight forward syntactic structures' (p.241). He notes that features such as ellipsis and reliance on immediate context, use of demonstrative modifiers rather than definite articles are preferred in e-mail register. As regards style, unconventional abbreviations illustrate the informal and personalized style of e-mail messages.

Koester (2004) claims that, 'e-mails are less important types of documents' and are follow-up to sent documents (p.33). Contrary to the claims of Koester (2004) that e-mails are just follow-up to the official information that have been sent and received, at times, no correspondence has taken place through surface mail prior to the reception of electronic mail. Even though Koester (2004) sees e-mail as a less important document, it is still one of the fastest for contact. The fact that decisions can be taken on correspondence through an e-mail pending the reception of surface mail correspondence makes it important.

E-mails sometimes refer to issues that have been discussed and hence do not repeat information except when necessary. Koester (2004) notes that 'the structure and characteristics of business letters, faxes and e-mails give us an insight into how genres evolve to meet the changing demands of the discourse community' (p.35). Faxes and especially e-mails are still evolving and thus subject to more variation, instability, enquiry and research. Koester (2004) also notes that 'the notion of context dependency has to do with inter-textual links which freely welcome the use of definite article such as 'the' in reference to items mentioned in the letters' (p.34). The need for reader variability in interpretation and the depth of experience needed in mental processing of a text cannot be overemphasized in our present world where communication is becoming more and more complex every day. It is therefore in an attempt to further research and explore the context dependency in interpreting e-mail texts that we have decided to examine the issue of inference in e-mails.

Fax and e-mail have the added advantage of instantaneous responses to sent messages. Even though letters and e-mails are meant to communicate messages, a letter is more formal than e-mail. A letter gives more details than the e-mail especially if it is a business letter. E-mail, and in particular, personal e-mails have features of spoken language. E-mails have the original messages included along with the replies and this makes it easy for the reader to go over or refer to the previous messages in case of any omission or clarification of facts. For documents that have some form of legal implication, surface mail is still the preferred method of communication. But where speed is important, e-mail comes in handy. An official letter taken through surface mail may then follow. The fact that documents can be sent by e-mail attachment is another added advantage for strictly official letters and important documents where the writer's signature is mandatory. Comprehensive details on the features of e-mail can be found in Bachman and Palmer (1996), Baron (2000), Gimenez (2000), Ochs (1983), The Economist (1996) etc.

There is no doubt that modern day technology and new educational trends have affected the way we think, write and process documents. Baron (2000) comments on how technology has been changing the way we write and the need to be aware of these current changes which are gradually affecting our written and spoken language. In the epilogue to the book- *Alphabet to Email: How Written English Evolved and where It's Heading*, Baron notes the following;

As ultimate masters of our linguistic fate, we need to think carefully about whether the medium of communication matters. Is writing valuable in assisting us in – or revealing ourselves to others? Our future lies in part, in how the next generation of writers perceives the relationship between spoken and written language. (Baron 2000, Epilogue: Destiny or choice, Gladia's Ghost)

Conducting research on the new technologies therefore becomes imperative to help humanity move forward and come to terms with the latest developments worldwide.

THE DATA

The data used in this work are raw data from academics from eight randomly selected faculties (Arts, Agriculture, Clinical Sciences, Basic Medical Sciences, Architecture, Science, Pharmacy and Technology) at Obafemi Awolowo University (OAU) Nigeria. The e-mails were personal and academic e-mail communication among academics in this University. The e-mails were sent to and from colleagues, friends, advertisers etc to academics at OAU. Ten e-mails were solicited from randomly selected academics in these faculties while the remaining twenty mails were those on advertisement and business transactions giving a total of one hundred. Forty of the mails were treated as e-mail chains (where the contents were treated with reference to the previous mail while the remaining twenty were treated as one-way. Most of the mails have an informative purpose (requesting information from or giving information to recipients. Even those mails in which a lot of pleasantries were expressed still had some form of important information such as notable dates for conferences, specimen sent for analysis abroad, information about abstracts, assessor's comments on write-ups, submission of manuscript, proposals for award winning projects, deadline for submission of paper, information on admission procedures etc. Using real life mails (raw data) gives the analysts a variety of naturally occurring data to work with and it also gives them the opportunity of investigating this type of language use among lettered people. Academics find e-mail an appropriate medium to fulfill a communication need which made some of the registers to be personalized in some cases.

INFERENCING IN DISCOURSE

Inferencing can be seen as a process by which meaning associations are made with reference to the interpretation of a text or situation. It involves interacting with the different textual and contextual elements of a text. Shiro(1994) notes that, even though scholars in various disciplines have worked on inferencing, very few of them have concerned themselves with the inferential process in connected discourse. The inferences that have been made were those generated for isolated sentences and the variation in inferencing could be attributed to differences in readers' ability in text processing. Shiro (1994) further notes that most of the inferences drawn from a text are the result of the combination of either contextual or textual elements. Variables such as readers' previous knowledge, motivation or concentration could be responsible for different interpretations because a reader's mind becomes active while reading. During information processing in the reader's mind, inferences are made to confirm, deduce, interpret, make associations or create meaning from a text.

Inferences are elusive and studying inferences could be a little bit problematic. The reader tries to infer when the interpretation of a text requires extra effort because naturally, inferences are not what can easily be detected in a text. The reader has to interact with the text to be able to determine what the writer probably hopes to pass across. It is interesting to note that some of the inferences from a text may even be more than or different from what the writer has in mind. With e-mail, oftentimes, the added advantage of the interaction with previous mails of the same interactants makes inferencing less burdensome or problematic. In a situation where the mail is the first ever, which usually includes the introduction of the personality of the writer, inferencing on the purpose and content of the mail is predictable. Inferences are the outcome of textual interpretation. It is therefore the duty of the text analyst to examine what the reader contributes as input which the analyst then uses to produce inferences and the roles of these inferences in the text. It is important to note that sometimes it is the analysis of the inferences that makes some difficult texts clear or understandable to the casual reader or researcher in text analysis. Pertinent to the issue of inferences in written texts are cohesion, coherence, implicit and explicit information and code-mixing.

Cohesion

Some of the major components of text are cohesion and coherence and a lot of studies have been carried out in this area especially with reference to the writings of ESL learners. The structure of a text depends on certain linguistic resources which cement it together for meaning. Two of these resources are cohesion and coherence. Cohesion, according to Stubbs (2005), refers to linguistic resources (such as lexical repetition and anaphora) which are explicitly realized in the surface structure of a text (p.306).These linguistic resources are referred to as cohesive devices in discourse and most of them are overtly used in texts. Halliday and Hasan (1976) however note that cohesion is formed by the inclusion of formal ties which bind one sentence to the other and these include-reference, substitution, ellipsis, conjunction and lexical cohesion. These linguistic resources are very significant to the overall meaning of the text as they interact together to give texture to the text. Baker (1992) confirms this by defining the function of cohesion in the text. Baker (1992) submits that:

[Cohesion] is the network of lexical, grammatical, and other relations which provide links between various parts of a text. These relations or ties organize and, to some extent create a text, for instance by requiring the reader to interpret words and expressions by reference to other words and expressions in the surrounding sentences and paragraphs. (Baker,1992, p.180).

Halliday and Hassan (1976) give a detailed account of these cohesive devices reinforcing their significance as an important aspect of discourse with thorough examples for illustration. To them, these ties can be semantic or lexico-grammatical but the fact that a text is cohesive does not automatically determine its coherence. Given the above definition, it is arguable that without cohesion, there can never be anything called text. Hence, understanding the functionality of the concept of cohesion in discourse is very important to any text.

Coherence

Wenertrom (2001) claims that 'coherence distinguishes a text from a random group of words or utterances based on the relationships among the ideas behind it' (p.67). To him, one aspect of coherence is cohesion and this has to do with the connections between linguistic elements within the text. Halliday and Hassan (1985) submit that 'what gives the text its coherence, however, is not simply the presence of such chains but their interaction with one another' (p.337). This stance aligns with Stubbs (2005) who posits that:

Coherence refers to textual relations which are inferred, but which are not explicitly expressed. Examples include relations between speech acts (such as offer-acceptance or complaint-excuse), which may have to be inferred from context, or other sequences which are inferred from background non-linguistic knowledge. (Stubbs, 2005, p.306)

Shiro (1994) puts up an argument on whether coherence is a textual feature or something in the mind of the speaker or writer. Shiro claims that, no authentic text is incoherent because it would always mean something to the speaker or writer. It is the degree of successful interpretation which makes a text more or less coherent from the addressee's point of view. Shiro also discusses the issue of whether the reader recovers meaning from the text or whether s/he looks for the writer's intention.

We wish to note at this point that being in total agreement with Shiro on the argument on cohesion and coherence may take one to a point where one feels that inferencing is not necessary since one cannot read the totality of the reader's mind. Given the opinions above, it is evident that the two concepts under discussion in this section are effective tools for the present study as they set the platform for inference in discourse and, also, aid the comprehension of the text.

Many studies available in this area have been concerned with the writings of second/ foreign language learners with particular attention to their use of cohesive ties. Examples of scholars who have worked in this area are: Lee (2004) & Olateju (2006), etc. They focused on the written text of L2 learners to investigate their competence in the target language. These scholars used the written texts as their data and that has been the norm in the plethora of literature on the studies of cohesion and coherence in discourse. However, the data for this study are electronic mails and scholars have noted that it is not only the written texts in form of narratives that qualify to be regarded as texts. There are texts everywhere that human beings use actively in communication and inferencing lessens the burden of the reader or analyst in terms of interpretation of texts and/or co-texts.

The comprehension of any text, according to Coulthard (1994), requires inferencing to some extent but some texts require more processing than others and are, therefore, more implicit. Electronic mail is a form of text that goes beyond single sentences as it is formed by series of sentences from which we can generate inferences as the context and situation of each e-mail suggest the probable inferences that can be drawn by the readers when the text is considered as a whole not taking sentences in isolation. In view of that, we concur with Coulthard (ibid) that, 'the type of inferences drawn on certain textual information depends on the function of that information in the text' (p.173), that is, how the information is related to the rest of the text. This in essence, spells out the significance of cohesion and coherence in a text as the two concepts provide the relations that we need to make the necessary inferences from any text.

ANALYSIS OF TEXTS

This section presents the analysis of some of the texts examined for this work. Some inferences can be drawn from the texts below:

TE1a Dear Kanu, For my planning of the coming issues of DISCOURSE STUDIES, I would like to have an idea when also the resubmitted papers are bound to be submitted again.

TE1b Could you let me know when you think you can send me the next version of your paper?

In the text above, we can draw some inferences from the use of the conjunctive adjunct 'again' that, that is not the only time the paper will have to be submitted and that the corrected version of the re-submitted paper will have to be turned in again. Also, there is a co-referential relationship between the first person pronoun 'I' and 'My' referring to the speaker. The same relationship exists between the use of 'You' and 'Kanu'. The pronoun 'You' is an anaphoric reference referring to Kanu the person to whom the e-mail is directed. The use of the lexical item 'paper' twice in the first and second sentences is an instance of another cohesive device known as repetition and it suggests that the two interactants have something in common, perhaps, they are both 'academically inclined'. Considering the entire text as a coherent text, an inference can be drawn that there has been a form of exchange between the two interactants and that this is not the first time that the two of them will correspond with each other.

A similar inference can be drawn from the e-mail below:

TF1a- Bola, thank you very much for your interest in doing an MA in Psycholinguistics.

TF1b- It sounds as if you have the relevant requirements, but you need to apply formally going through the normal procedures.

TF1c You can either apply online using the application form on our Web pages or you can write to our graduate secretary Sade Martin (sadeem@nessex.ac.uk), and she will send an application pack via mail.

TF1d With best wishes Tunsray Cloud

The explicit information from the above text is that Bola is seeking admission into the graduate school at the University of Essex as many expressions in the text suggest e.g: your interest in doing an MA in Psycholinguistics, requirements, apply, procedures, application form etc. All these are indicators that the recipient of the text is seeking admission. We can infer that the correspondent is knowledgeable as regards the requirements needed for a M.A course in Psycholinguistics as the phrase 'it sounds as if you have the relevant requirements' suggests. Also, the use of anaphoric reference in terms of the pronoun' she' in the sentence: *"…and she will send an…"* helps us to infer that the graduate secretary at the University of Essex is a female.

The Explicit and the Implicit Information in Text Construction

Every text has what is stated explicitly and implicitly. Shiro (1994) notes that, 'there is no accurate criteria that can be used to differentiate the explicit content of a text from the implicit' (p.169). This submission may be true of some other written text but e-mails definitely have explicit and implicit information. Most e-mails obey the unwritten rule of brevity in an attempt to get a message across without wasting much time but this does not cancel the fact that the mails contain both implicit and explicit information. Shiro (1994) refers to Sperber and Wilson (1986) who see inference as the process by which an assumption is accepted as true and probably true on the strength of the truth or probable truth of other assumptions. It is thus a form of fixation of belief. In their study, they claim that communication cannot be totally explicit. The explicit information is always clear and may be a form of information on a project, topic, request for something, rejection/acceptance of offers, seasonal/occasional greetings etc. Inferencing also reduces the problem of misinterpretation of communicated texts on the part of the reader. The world is a complex place and the need for good communication increases every day.

Communication is therefore achieved by producing and interpreting evidence and comprehension is brought about by making assumptions that result from the interaction between linguistic structure and non-linguistic information. Sperber and Wilson suggest that the interpretation of both explicit and implicit information requires inferencing. Below is an e-mail from an editor to a writer.

TA1a- Dear DR GBO, I saw your paper in the system!

TA1b- You are now a mere number. LCC-0427

TA1c- And I hope you see the moral difficulties I had trying to submit the paper on your behalf

TA1a is definitely explicit. 'Paper' in the text is shared knowledge between the writer and the reader. The writer said your 'paper' in the system. TA1b implies that the recipient's name has probably been coded and the number referred to is the present number identification of the recipient. A casual reader may not know why the addressee suddenly became a mere number but an analyst may make inferences for text explicitness. TA1c reveals some shared background knowledge as regards the submission of the paper at a point in time. Inferences have to be made to be able to guess what actually happened that the writer had to use the phrase–*moral difficulties.* It might mean some procedures which would eventually amount to dishonesty on the part of the writer or inability to be straight forward. It might also be deduced that the recipient assumes that the writer could use some means which are probably acceptable where he/she (recipient) is but which are not acceptable where the writer is. TC1a-d are other examples of texts that have direct explicatures and they are interactive. The writer imagines that s/he is making the reader go through some experiences which s/he is also going through by literally doing what he/she says in the mail. Both reader and writer are from two different continents using the instant messaging and response advantage of e-mail.

TC1a- Since we are talking about God and *'li-gion and stuff-------

TC1b- now, come with me to Mount Everest Church on115th floor

TC1c-just ‘across 110 street’ at the north side of central park
TC1d- Not being a Christian anymore

The texts are descriptive and they give vivid descriptions of people, places and things so as to give an adequate representation of the situation being described.

The expression in TC1d -‘Not being a Christian anymore’ is an explicit statement and this can be said to foreground the writer’s comments on all that took place at that church that day. In this text, there seems to be no implicit information as the writer was out to give a vivid description of all that happened to other people which the writer was determined to make his/her reader experience inwardly. In this text, the writer was not out to make his reader infer but to be a part of the experience. In this type of text, the implicit information that is not easily detected may be precipitated by some contextual information about the culture of the people and places being described or what could be happening there at the time the mail was sent or the period being referred to.

Though Sperber and Wilson (1986) believe that all communications require inferencing, they still distinguish between implicit and explicit information. This made them to draw a line between ‘explicatures’ and ‘implicatures’ based on the utterances. They note that an assumption communicated by an utterance ‘u’ is explicit if and only if it is a development of a logical form encoded by ‘u’ (p.182).

Sperber and Wilson (1986) also note that a logical form is a well formed formula, a structural set of constituents which undergoes formal logical operations determined by its structure. Logical operations are truth preserving. This means that explicatures can be logically and easily deduced from the utterance. In line with Sperber and Wilson, there can be degrees of explicitness based on the utterance or discourse. Below are texts with some degrees of explicitness and implicitness

TA8a- I was delighted to see recent abstract of a research titled------
TA8b- This I believe is in line with the original purpose of our association
TA8c- However, it would appear from the abstract that the author is unaware of the extensive work that has been done in-----
TA8d- Although --- (method) has been used in – (place), the first systematic application of the use was done in --- (place) with remarkable success.
TA8e- Congratulations to the author of the abstract ----.
TA8f- I am looking forward to more reports on these and other successful techniques

Texts TA8a-f have different levels of explicitness. It starts with the appreciation of the fact that an abstract in an area of study was sent and that it fits the objective of a particular organization. However, a dissenting move brings in the implicatures from TA8c which gradually and implicitly presents the idea that the writer has probably not researched enough to know that:

- A lot of work has been done in the area in which the abstract was written;
- A particular organization presented the first systematic application used in the area of study;
- Whatever he has presented now has been done at a point in time in a particular place that was mentioned in the mail;
- The technique s/he is presenting already has a recorded remarkable success;
- The writer would need to work hard to beat that record;
- It is implied in TA8f that the reader of the abstract is looking forward to ‘more reports’ which actually implies some other reports apart from the report of the initial success that has been made in that area of study;

- The writer of the mail is actually expecting the development of some other useful techniques apart from the one mentioned in the abstract and
- The writer of the mail is tactfully suggesting that there is no new thing in what the writer of the abstract is presenting and should probably try his/her hands on something else

The writer also mentioned 'and other successful techniques' in TA8f which implies that the technique you have described in your abstract has been done with remarkable success in a place at a point in time and that all we are looking forward to are other techniques that would be equally successful.

According to Sperber and Wilson (1986), 'implicatures are recovered by reference to the speaker's manifest expectation about how his/her utterance should achieve optimal relevance' (p.195). As can be seen from Sperber and Wilson's description of explicit and implicit information, there can be degrees of explicitness and implicitness but it may be difficult at times to make a clear-cut distinction between explicit and implicit information. Some of the e-mails encountered were personal, academic, unsolicited, professionally motivated, etc.

Unsolicited mails could be in different forms i.e business, introducing all kinds of wares (drugs, books, contracts, financial partnership, relationships, travels, money laundering, job offers, health trips, scientific discoveries). Most of these have explicit information while implicatures are as usual, not well pronounced as this will not help them in their advertisement.

The mail below addressed the receiver as 'Hello!' which is quite impersonal. There are explicit and implicit information in unsolicited mails as well. Below are examples.

TB1a - We are presenting you international pharmacy network called -----drug store.

TB1b- We have tested medications they sell and we can certify that they do have quality medications, excellent prices and they ship world wide

The explicit information is the low prices of their medication and their shipping policy.

The implicit information here is simply 'patronize them as we have done'

Code-Switching and Code-Mixing

Code-switching, code-mixing and Pidgin English usage which were noticed in some of the mails are socio-linguistic features that could accompany the contextual situation or communicative context of the interactants in a discourse. They give off signals about the background of interactants and through them an analyst can draw an inference concerning the origin or background of the interactants. Language, according to Mesthrie, Swann, Deumert & Leap, (2003) is not just denotational, (a term which refers to the process of conveying meaning) but also refers to ideas, events or entities that exist outside language. While using language primarily for this function, a speaker can inevitably give explicit information concerning his or her social and personal background. By this statement, Mesthrie et.al refer to the way the language of a particular group of people gives indication of the region or nation they come from when they speak the language. However, it is not only when speakers communicate entirely in their mother tongue or dialect verbally that we can make inferences concerning their nationalities in e-mails, we can also make inferences concerning their regions or nationalities through the use of code-switching and code-mixing. Although, occasionally, someone who has lived for a long time in a particular place may be able to speak the language of the people around him/her despite the fact that he/she is not from that particular language group. Below is an example;

TG1a E nle o (Yoruba language)
(How are you)
E ku igbadun oye oyinbo (Yoruba language)
(You must be enjoying the white man's cold weather)

Just to say hello, Greetings to the family

TH1a Hello
Mo ro pe o ti de si ilu wa ti o si mu oorun wa tori oorun ran ni Glasgow gaan lana
(I thought you had arrived in our city and that your coming made the sun to shine because it was sunny in Glasgow yesterday

Speakers sometimes code-switch from one language to another depending on the social function of the message. However, only ten of the mails had evidence of code-switching or code-mixing and some of these were manifested in the opening routines of the mails to communicate some form of pleasantries. In TG1a, the writer's purpose is to exchange some pleasantries and cheer up a colleague in a foreign country. In TH1a, the purpose is both identification with the reader and fact-finding. There is a shared knowledge on the weather in Glasgow and the arrival of the recipient in the text. An analyst however needs some background knowledge to fully understand the explicit and implicit information in the text. In TH1a, the writer is a Nigerian who has spent about twenty-seven years in Glasgow and has identified with the place;

Mo ro pe o ti de si ilu wa
(I thought you had arrived in *our* city)

The mail chain showed that the recipient had written that he was coming for a conference in Britain and would be putting up with him. Since the recipient was familiar with the weather in Glasgow (having been there before), he was excited to inform the recipient about the sunny weather as opposed to the constant cold and wet weather.

Crystal (2004) defines code-switching as 'the process in which people rely simultaneously on two or more languages to communicate with each other' (p.164). This is complemented by Myers-Scotton (2006), who refers to code-switching as 'the use of two language varieties in the same conversation' (p.239). From these two definitions, it is obvious that with code-switching in any form of text, be it spoken, written or electronic, an inference can be drawn from the communicative context, the actual regions or nations the interactants come from. This is very relevant to electronic mails as the communicative context most often than not basically gives us the clue to the writer's background. Examples abound in personal mails where the recipients intend to show some form of familiarity by identifying with the reader socio-culturally.

Yoruba (which is one of the languages used in the text) is the language of one of the major ethnic groups in Nigeria. Code-switching therefore, is used in the text above as a communication strategy by interactants in text TG1a to cheer up a colleague in a foreign country thereby sustaining interpersonal interaction. This is in line with one of Savile-Troike's (2007) claim on communication strategies. Saville-Troike's (2007) claims that people employ communication strategies to compensate for their limitations in their L2 linguistic resources; such as repairing misunderstanding or sustaining interpersonal interaction. This reinforces the fact that electronic mails are a kind of naturally occurring discourse because they display the variety of features of natural discourse.

Pidgin English

Pidgin languages all over the world arise from contact situations in which the groups involved have no common means of communication. This claim is supported by De Camp (1971), Reinecke (1964), Todd (1974) etc. Todd in particular says that 'Pidgin is a language which arises to fulfill certain restricted communication needs among people who have no common language' (p.01). As a result of the business activities and the linguistic heterogeneity along the coast of Nigeria, Pidgin English flourished. This has spread to Lagos which is a metropolitan city. Pidgin English is a contact language which came about as a result of the trading activities between Nigerians and the white traders in the coastal area of Nigeria (Calabar, Port Harcourt and Warri) from the beginning of the 17th century. Elugbe and Omamor (1991) note that Pidgin English is spoken by many people as native language in Nigeria (p,14). Today, the use of Pidgin English still spreads and it is not limited to those without formal education. Working on the verb in Standard English and Nigerian Pidgin English (NPE), Akande (2008) sees Nigerian Pidgin English as English-lexifier contact variety (most of the words are derived from English) which emerged due to the socio-economic and historical contact between Nigerians and the British (and other Europeans). Akande further notes the following:

> In Nigeria today, Nigeria Pidgin English (NPE) is spoken by graduates professors, journalists, lawyers, market women, artisans and illiterates alike and it is found in one form or the other in every part of the country and in the Eastern parts (especially in Warri and Sapele) (Akande 2008, p,37)

It is therefore not surprising that Pidgin English featured in some of the texts collected for this work. Below is an example. Details about the structure of Pidgin English can be found in Akande 2008, De Camp (1971) & Elugbe and Omamor (1991)

TH1a

I hope say di cold no dey too much (Pidgin English)
I hope the cold is not much (Standard English)
Make una try o (Pidgin English)
Keep on trying to cope (Standard English)

The writer code-switched to Pidgin English to identify (implicitly) with the recipient whom he knows is trying to cope with the cold weather. This is all in an attempt to lessen the mental burden of the unusual cold weather. The explicit information here is that the weather is extremely cold where the recipient is. Pidgin English could also be used as a strategy for social alienation, inclusion or to create certain communicative effects. This is usually done where you have strangers you want to keep out of the discourse, business, secret talk, gossip etc.

CONCLUSION

In this work, we have tried to examine the various ways by which inferences can be made in electronic mails. We noted that inferences come about as a result of connecting meaning beyond the sentence level where sentences are seen in the light of other sentences or some shared background knowledge. Most inferences drawn from a text are the result of the interaction between contextual and textual elements which makes it possible for experienced readers to be able to infer meanings that the writer never thought of. Linguistic resources such as cohesion and coherence are part of the textual meta-function for linking one part of a text to the other. Apart from cohesion and coherence, the comprehension of a text also depends on the readers' ability to be able to identify the implicit information in a text. Different texts have different levels of explicitness and implicitness depending on the type of mail. For mails that advertise, the explicatures (explicit information) are more than the implicatures (implicit information), knowing full well that, the more explicit they are the better for them and their readers. From the analysis of the mails examined, we noticed that code switching and code mixing are sociolinguistic features that could be used to determine explicatures or implicatures for multilingual interactants.

IMPLICATIONS

The semi-formal nature of e-mail coupled with variation in language use has affected the written interpersonal communication of some users of e-mail in all areas of human endeavour because of lack of established conventions. As a result of the added advantage of instantaneous responses to messages and the fact that e-mail has taken over as the most common form of exchanging messages, there is need for further research on its use for formal and interpersonal communication.

It has therefore become necessary to research into the teaching and acquisition of materials for instructions in communication strategies for this indispensable medium of interaction which has turned the whole world into a global village.

Schools, colleges and institutions may have to revise their syllabi to accommodate this system of communication so that students and scholars can be well informed and versed in the style, structure, and discourse comprehension of this evolving communication strategy. Reading specialists also have a part to play by introducing good reading materials that will enable young readers and learners to make valuable inferences from reading texts. Exposure to a wide variety of good reading materials, instructions on text processing and reading purpose will enable all readers at various levels to develop critical and creative minds as students, explorative minds as business people and creative and constructive minds as academics

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KEY TERMS AND DEFINITIONS

Coherence: Meaningfulness of a text brought about through the relationship that exists between the ideas in a text.

Cohesion: The hanging together of a text through the use of linguistic resources such as-substitution, ellipsis, repetition etc.

Explicit Information: Information that is so clear that it cannot be misinterpreted in a text

Implicit Information: Information that requires inferencing in a text.

Inferencing: Supplying missing meaning based on the interaction between textual and contextual elements of a text.

Pidgin English: Contact language which came about as a result of the trading activities between Nigerians and the white traders in the coastal area of Nigeria. It is spoken by unlettered people (for communication) and lettered people (in relaxed conversations during football matches or discussion on politics) in Nigeria

Chapter 28
The Semantics of Human Interaction in Chinese E-Communication

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ABSTRACT

The current study investigated typical, everyday Chinese interaction online and examined what linguistic meanings arise from this form of communication – not only semantic but also, importantly, pragmatic, discursive, contextual and lexical meanings etc. In particular, it set out to ascertain whether at least some of the cultural values and norms etc. known to exist in Chinese culture, as reflected in the Chinese language, are maintained or preserved in modern Chinese e-communication. To do all this, the author collected a sample set of data from Chinese online resources found in Singapore, including a range of blog sites and MSN chat rooms where interactants have kept their identities anonymous. A radically semantic approach was adopted – namely, the Natural Semantic Metalanguage (NSM) model – to analyze meanings that arose from the data. The analyses were presented and compiled in the way of "cultural cyberscripts" – based on an NSM analytical method called "cultural scripts". Through these cyberscripts, findings indicated that, while this form of e-communication does exhibit some departure from conventional socio-cultural values and norms, something remains linguistically and culturally Chinese that is unique to Chinese interaction online.

INTRODUCTION

Wierzbicka (1991: 1) began her influential book with the statement that "language…is a tool of human interaction. [There are] various kinds of meanings which can be conveyed in language... – meanings which involve the interaction between the speaker and the hearer". This statement is testament to the fact that linguists no less semanticists are greatly interested in human social interaction and discourse behavior. While there is ample research into everyday human interactions in Chinese Mandarin ('Chinese' hereafter), comparatively little has been discussed in everyday human interactions

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through computer-mediated communication (CMC hereafter) or e-communication in Chinese, even less different kinds of meanings that get conveyed between speakers and hearers in Chinese e-communication (e.g. pragmatic meanings, discursive meanings, contextual meanings, lexical meanings etc.). Having said this, there is no valid reason for putting off a discussion on the current trends and issues in everyday Chinese e-communication, since, after all, millions of users of Chinese have become increasingly dependent on modern technology through electronic means in an attempt to communicate with each other and to express their ideas and thoughts, meanings and even emotions etc.

This chapter presents some preliminary findings from human interaction and the kinds of meanings that it conveys in everyday Chinese e-communication, as reflected by Chinese CMC in Singapore, with the main impetus being finding out whether certain cultural norms, values and practices can (or cannot) be and are (or are not) attested/preserved in everyday electronic discourse behavior and e-communication. To be precise, using concepts *guanxi* lit. 'network(ing), connection, relationship', *xiao wo* 'the smaller self', *da wo* 'the greater self', *shu ren* 'an old acquaintance', *sheng ren* 'a stranger', *ziji ren* 'an insider', *wai ren* 'an outsider' and *mian zi* 'face' as a benchmark, it can be established whether certain Chinese cultural norms, values and practices encapsulated in these concepts have been preserved (or not) in Chinese CMC.

BACKGROUND

What, Who and Which Were Studied, and Where and When

Given the myriad of CMC sources especially those available in the Chinese language, a decision was made to confine the current study to only selected Chinese CMC in Singapore so as to make the project manageable. Human interactions and discourse behavior in typical e-communication from 112 Chinese blog sites and MSN chat rooms were extensively examined. In light of the fact that electronic resources are constantly being updated by its users (e.g. regular website maintenance, bloggers adding new posts etc.), it is useful to know that the data – which I often refer to as the 'sample dataset' in this chapter – were all collected during the first few months of 2009 (mainly between January and May 2009). Keeping track of 'when' the data were collected is also important to contemporary Chinese linguistics, since new words etc. have been entering into the Chinese language at an amazing rate. At the time the sample dataset was accessed, there were 1,506 participants i.e. bloggers and chat room users. Most, if not all, of the participants had kept their real identities anonymous. There were a total of approximately 33,507 words or 1,523 sentences collectively tallied from all the original posts (that is, if an online discussion did indeed originate from someone's post). Within the 112 blog sites and MSN chat rooms, 2,082 posts in reply and subsequent to the original post were recorded. There were an estimated 111,432 words or 5,972 sentences collectively tallied from 2,082 posts.

One of the great advantages using data from Singapore is that it sits at the crossroads between the East and the West and is a fascinating melting pot of Chinese, Anglo, Malay and Indian cultures, with Chinese predominating both linguistically and culturally. Indeed, the Chinese language as it is spoken in modern Singapore has captivated the interest of experts, not least linguists, if for no other reason than to see how the language has or has not transformed in this very much multilingual and multicultural environment. But does this make Singapore Chinese any less of a 'Chinese language' than Chinese spoken elsewhere? To my mind, no. The reason is that no one Chinese-speaking region and/or community can claim to have remained monolingual without any external linguistic influences, such as influences from other dialects and/or other languages. Even in Beijing, the capital of China, at least two kinds of 'Chinese' varieties co-exist - one being 'Standard Chinese', which is based on a standard variety of Mandarin (the dialect), and the other one being the local variety of Mandarin. On top of this, the 'Chinese' language spoken in Beijing is being heavily influenced by languages such as English, other Chinese dialects as well as other varieties of Chinese (Mandarin), such as Taiwanese Chinese, through mass media, popular culture and CMC. In this sense, then, the Chinese language spoken in Singapore may still be seen as more or less representative of the situation in the Chinese language in general, since every Chinese-speaking community/region is linguistically complex and none is impervious to outside influences (though see section 4. later on in this chapter for further discussions on the issues).

Singaporeans have a heavy reliance on CMC. The paramount importance that information technology plays in the daily lives of all Singaporeans is visibly evident e.g. passengers sending or receiving SMS texts via their mobile phones on public commuter trains and buses; radio messages in and out of vehicles; extensive use of podcasts, the intranet, blogs and online conferencing as an option for classroom instructions at education institutions etc. While there is no evidence at this stage that certain groups of the Singapore population use CMC in ways that are different to other groups, the following observations did come to light as possible tendencies or trends from my sample dataset. Firstly, many Chinese blogs and MSN chat rooms are either based on themes or figures in the popular culture, or the discussions somehow lead back to such themes or figures e.g. celebrity blogs, or fans chatting about their favorite celebrities. Secondly, it is possible to speculate that many users of Chinese blogs and MSN chat rooms belong to a relatively "young" age group i.e. teenagers to people in their fourties. I would, however, hasten to add that these are only possible tendencies or trends, as there are surely instances both within and outside the sample dataset of CMC in Singapore that involve blogs and/or MSN of other nature (e.g. news and current affair etc.) with bloggers and chat room users from other age groups (e.g. children, adults beyond their fourties etc.). It is impossible to arrive at anything conclusive here since most, if not all, participants have decided to keep their identities anonymous[1].

Why Study Chinese CMC

Chinese is one of the most widely spoken languages in the world and, if number of speakers is something to go by, then it would be reasonable to assume that Chinese be one of the most used languages by CMC users. In fact, as with CMC users of any language anywhere in the world, more and more Chinese CMC users – "speakers" and "hearers" alike – have come to rely on CMC in order to get things done on a daily basis. This is a crucial reason why the Chinese-speaking population should not be overlooked in a study such as the present one.

A more important incentive here is to see whether there is any discernible departure from traditional socio-cultural norms and values in contemporary Chinese language and culture in Chinese e-communication, given that CMC is a more "novel" medium of communication compared to other more "conventional/traditional" media of communication. In order to do this, though, it has been necessary to first take note of previous and existing accounts of human interaction in Chinese. In so far as I am aware, there is, comparatively speaking, not a large body of literature on meanings which involve the interaction between the speaker and the hearer in spoken Chinese contexts, even less (if any, at all) on interaction between the two parties in written Chinese contexts (to which blogs and MSN chat rooms belong). Probably by far the most widely talked-about notion governing Chinese interaction is *guanxi* lit. 'interpersonal networking;

social connection', followed closely by concepts that represent aspects of Chinese interaction not unrelated to *guanxi*, including *mian zi* 'face'; *da wo* lit. 'the greater self' and *xiao wo* lit. 'the smaller self'; *shu ren* 'an old acquaintance' vs. *sheng ren* 'a stranger'; and *ziji ren* 'an insider' vs. *wai ren* 'an outsider'. A brief overview of what these notions and concepts mean is crucial not only as a lexico-semantic enquiry but also to our understanding of Chinese interaction, for the meanings of these words encapsulate typical pragmatic and discursive norms between two people as they interact with each other. In this chapter, I have examined a sample dataset of CMC in Singapore in an attempt to ascertain whether or not what scholars have conjectured about *guanxi*, *mian zi*, *da wo*/*xiao wo*, *shu ren*, *sheng ren*, *ziji ren*, *wai ren* etc. have been preserved – or not – in contemporary Chinese e-communication. This has been done rigorously and descriptively. The question, though, is how.

How Meanings in Chinese CMC Were Examined

This paper adopts a radically semantic approach, whenever linguistic meaning is involved, as a way of examining pragmatic and discursive meanings arisen from Chinese interactions. Many scholars have probed into the intricate interplay or relationship between semantics and pragmatics and, as Wierzbicka (1991: 15 – 19) reported, there have been three main approaches to this interplay/relationship: (1) "semanticism" i.e. "focus on meaning"; (2) "complementarism" i.e. "meaning on one hand, use on the other"; and (3) "pragmaticism" i.e. "don't ask for meaning, ask for use". According to Wierzbicka (ibidem), the problem with (1) and (3) is that neither use nor meaning exists independently from each other, and the problem with (2) is that there is no sense in creating a gulf between use and meaning. In her own deliberation, Wierzbicka (ibid: 18-19) insisted that "linguistic semantics and linguistic pragmatics are one", and that pragmatics "form a coherent, integrated description of linguistic competence". Wierzbicka (ibidem) further argued that:

Attitudinal meanings can be treated in the same descriptive framework as any other kinds of meaning. They can therefore be regarded as belonging to semantics and, ipso facto, to 'core' linguistics. There is no gulf between linguistic pragmatics and linguistic semantics; on the contrary, linguistic pragmatics can be fruitfully seen as part of linguistic semantics.

In the same vein, the current study takes a fundamentally semantic approach to the extent that I have dealt with pragmatic and discursive meanings evident from Chinese interaction in the dataset in the same way as any type of linguistic meanings would have been explicated.

In terms of the methodology for the explication of meanings, the Natural Semantic Metalanguage (NSM) framework - as developed by Anna Wierzbicka and Cliff Goddard over the last 40 years or so (e.g. Goddard & Wierzbicka 2002; and Wierzbicka 1996) – has been adopted. By using a set of 60 or so semantically unanalyzable or primitive units – known as "primes" - one would then be in a position to decompose complex linguistic meanings conveyed in e-communication into configurations of semantic primes, thus making it possible to study, compare, and explain these meanings (see Appendix A for the complete NSM inventory of primes). The NSM is "Natural" because each and every one of the semantic units in the system is neither an artificially nor arbitrarily conceived entity but has an identifiable lexical counterpart in all natural languages (hence each prime is also recognised as a "lexical universal"). The framework is "Semantic" because, among other things, primes in the NSM can be (and are) configured to form(ulate) reductive paraphrases and semantic explications of complex linguistic meanings. For instance, in the explication of the sentence-final particle *meh* in Singapore Chinese (see Appendix B), configurations of NSM primes are organised into six segments. In the first segment, the configuration 'at a time before now, I thought something' is made up of the primes TIME, BEFORE, NOW, I, THINK and SOMETHING. In the second segment, the configuration 'something happened now' consists of the primes SOMETHING, HAPPEN and NOW. In subsequent segments of this explication, semantic configurations comprise not only the primes that have just been mentioned but also BECAUSE, THIS, CAN, NOT, MORE/ANYMORE, LIKE, KNOW, WANT, SAY and YOU. NSM configuration/formulation of primes just as much as the identification of primes themselves has been tested empirically in all natural languages i.e. NSM primes can only be configured according to a set of universally attested combinatorial patterns and principles. Last but not least, the NSM is a "Metalanguage" since, after all, the main purpose that it serves is as a methodological "language" about meanings from/in "language". Over the years, the NSM has proved itself to be a successful model for the analysis of linguistic meanings, including pragmatic meanings and discursive meanings, among other kinds of meanings.

The procedure of the current study went roughly as follows: Firstly, human interaction as it occurred naturally and in Chinese cyberspace within the context of the current sample dataset was examined, with a focus on pragmatic and discourse behavior of this form of Chinese e-communication. Secondly, any conspicuously noteworthy pragmatic and discursive forms/meanings were checked again in the dataset to ensure that these forms/meanings were not one-off but, in fact, recurrent, occurrences ("noteworthy" in the sense that the a given pragmatic or discursive phenomenon has something interesting to reveal about whether or not certain Chinese cultural norms, values and practices have been preserved (or not) in Chinese CMC). Thirdly, each reportable linguistic meaning (as identified through the first steps) was subjected to semantic analysis using the NSM.

FINDINGS

Overview

So long as a given 'form' communicates meaning – be it lexical, syntactic, pragmatic, discursive etc. – form and meaning really should not/cannot be discussed separately. Nevertheless, for the sake of presentational clarity, the following findings on Chinese CMC discourse are organized into two main parts: "discursive form" and "discursive meaning".

At this point, I shall introduce the term "cultural cyberscript". The prefix "cyber-" refers to the nominal referent being modified - the "script", in this case – and the term as a whole has something to do with electronic communication, or CMC. This term is based on the NSM framework and on the idea of "cultural script". According to Goddard and Wierzbicka (2004:153):

The term cultural scripts refers to a powerful new technique for articulating cultural norms, values, and practices in terms which are clear, precise, and accessible to cultural insiders and to cultural outsiders alike…different ways of speaking of different societies are linked with and make sense in terms of different local cultural values, or at least, different cultural priorities as far as values are concerned. Cultural scripts exist at different levels of generality, and may relate to different aspects of thinking, speaking, and behavior.

At the end of each of the subsections, a snippet of a cultural cyberscript for the meaning generated by/from each phenomenon has been presented. It is a snippet, rather than a fully-fledged, cultural cyberscript for each of the phenomena due to the limited scope of the current chapter. However, all snippets of cyberscripts will go some way in contributing to the overall, "master" script for Chinese CMC, as I have presented in section 3.4. of this chapter.

Discursive Forms of Chinese CMC

Discourse Topic

One of the best-known features of the Chinese language, the so-called "topic-comment" structure, is well preserved in Chinese CMC discourses. In their influential work on Chinese grammar, Li and Thompson (1981: 15-16 and 85-103 etc.) famously referred to Chinese as a "topic-prominent" language, with the following definition of what a "topic" is:

…the topic of a sentence is what the sentence is about. It always comes first in the sentence, and it always refers to something about which the speaker assumes the person listening to the utterance has some knowledge…Furthermore, a topic can always optionally be followed by a pause in speech, which serves to set the topic, that which is being talked about, apart from the rest of the sentence.

In the scheme of things, "comment" refers to parts of the rest of the sentence that elaborates on the given topic. It is important to note that the topic-comment structure is not a uniquely syntactic property, but also semantic, pragmatic as well as discourse properties, of the Chinese language. Pan and Hu (2008) argued that, despite the seemingly flexible nature of topics in Chinese, the conditions governing topics in relation to the rest of the sentence are, in fact, well delineated, and that these conditions are just as semantic-pragmatic as they are syntactic. Li and Thompson (ibid: 100-103) added to their own account of what a "topic" is stating that:

…the topic is essentially a discourse element and functions in a special way in the discourse. By 'discourse' we mean the context in which a given sentence occurs, whether it is a conversation, a paragraph, a story, or some other kind of language situation…One of the functions of the topic with respect to the preceding discourse is simply to relate the material in the sentence of which it is a part to some preceding sentence (p100)…One way in which topics interact with material that follows is through contrast; that is, when a speaker wants to contrast two items, s/he places them as the topics of contrasting sentences (p101)…

The topic-prominent nature of the Chinese language is well-attested in Chinese CMC – which is hardly surprising, in my opinion, since the nature of blog sites and MSN chat rooms, along with how they are structured, presented or laid out, fits perfectly with the topic-comment feature of Chinese. In Chinese blog sites – be they about current affairs or something about the popular culture e.g. the latest news of a certain celebrity etc. – usually the "topic" is stated at the very top of the beginning of a web page or a discussion thread, then the "comment" is represented by all the bloggers that join in the discussion subsequently who wish to contribute their views, opinions, even emotions, to the "topic" in question. There is even a psychological "pause" following the topic which "sets it apart" from the subsequent comments, since the topic always appears at the beginning and there is a time lapse as well as a visual distance between that topic and each of the posts put up by subsequent bloggers.

Chinese MSN chat rooms also demonstrate an adherence to the topic-prominent phenomenon of the language. Even though there is not necessarily a pre-established "topic" at the top of a web page or site, one of the participants of the e-conversation always sets up a topic. That topic then gets elaborated on either by the participant him/herself or by other participants, with further "comments". The topic may get passed around from participant to participant in the way of responses, or it may change as someone else in the e-conversation comes up with a new topic (which may or may not be related to the initial topic).

In fact, conformation to the topic-comment feature of the Chinese language is so crucial, it is probably the single most important mechanism that manages to hold any one piece of Chinese CMC together as a logically sensible, communicative whole. Knowing exactly what the topic of a blog site/MSN chat room is, what the subsequent threads and posts are about, and being able to assume that every user taking part in a CMC shares a common knowledge ensure the logical flow of the e-discourse gets preserved, somehow. When the logical flow of the CMC is there, it appears that participants can often get away with the errors that they make with their language (some of which are noticeably abundant e.g. grammatical mistakes, fragmented or incomplete sentences, often presented in seemingly disconnected point forms etc.).

Here are two typical examples of discourse topics found in the dataset:

1. 这个 红星 大奖 我 特别 兴奋 啊。 this Red Star Award I really excited Particle 'This Red Star Award, I am really excited about (it)!' (*lamwaip* on 17 June 2008 at http://mediacorptv.sg/Chinese/forums/3/343/ShowThread.aspx")
2. 这些 骗子,丢尽 民族 的 脸; these cheat lose civilisation Marker face 这些 打 不 死 的 蟑螂, 恶心!! these hit not die Marker cockroach disgusting 'These cheats, the face of our civilisation is lost because of them; they are cockroaches that just won't die, how disgusting!' (*ikk* on 27 February 2009 at http://www.xin.sg/yourviews/story.php?comment=154495)

The underlined components of the examples highlight the discourse topic of the sentences. The rest of each of these sentences gives further elaboration on the topics. Discourse topics from a CMC participant are often reinstatements of the topic that the thread began with i.e. the topic of the original post of the thread (though the topic of the original post is not necessarily always reduplicated exactly in subsequent posts of the thread but, rather, slightly varied). In example (1), the topic (the "Red Star" Award) was not only the topic of the sentence in this blogger's post but also the topic of the original post in this thread, except that the topic has been slightly changed (the original post was about a certain "superstar" and whether she would win the year's "Red Star" Award, whereas the current post is about the award itself, though it is the same award). In example (2), the topic ('these cheats') echoes back to the topic of the original post in this thread, which was about naïve rich people from whom cheats would easily cheat money off (**钱多,人笨,好骗).** In other words, the presentational distance between a discourse topic and its subsequent elaborations may be as close as syntactic information in a given sentence, or as loose and/or remote as "paragraphic" information in a given thread. In a discussion thread, a given discourse topic can exist embedded in the sentence of a subsequent, "commenting" blogger's post – as in examples (1) and (2) - whilst at the same time serving its function as the overarching topic of the entire thread (even if the topic receives "variation on a theme" in subsequent posts). This discursive structure enables online discussions to be pulled together rather tightly.

Here is a snippet of the related cultural cyberscript:

'Topic-prominence' =

a. someone has said this before this time
b. because of this, you cannot not know what I am thinking when I say something more about this

'This' of 'someone has said this' in (a) refers to the topic, which is "given" in the beginning before all discussions started i.e. 'before this time'. Owing to the topic given, it is virtually impossible for a fellow blogger or chat room user to lose track of what someone is writing about in an e-conversation (component b.).

Highlighting and Attitudinal Meanings via Overt Use of Pronouns

In the context of Chinese discourse, pronouns play an important role and, in fact, their appearance – or omission – in a sentence often depends on how they interact with existing topics and comments in conversations. For example, Li and Thompson (1981: 659) commented on a so-called "topic chain" phenomenon "where a referent is referred to in the first clause, and then there follow several more clauses talking about the same referent but not overtly mentioning that referent". When a pronoun falls in one of those subsequent clauses even if its anaphoric reference points to an earlier referent, it can be omitted because "that referent" does not have to be "overtly mentioned" again. An omitted pronoun like this is called a zero pronoun or zero anaphora. The precise details of when a pronoun should be produced and when it should be omitted in Chinese discourse are famously documented in Li and Thompson (ibid: 657-675), so I will not enter into any more theoretical discussions about its formal behavioural patterns, except what these scholars have reported about pronouns being used for the purpose of "highlighting", as well as the "attitudinal meanings" that the use of pronouns is likely to generate.

Li and Thompson (1981: 662-665) had this to report on pronominal "highlighting":

…it is not enough just to say that whenever the referent can be understood or figured out, a zero pronoun can be used, because there are times when it would be quite obvious what the referent for a given pronoun would be if it were omitted, and yet it must be used (p662)…The role of highlighting can be seen even more clearly in the use of the first- and second-person pronouns. In general, a zero pronoun is used when there is no reason to highlight the reference to the speaker or the hearer, while the pronouns wo/women 'I/we' or ni/nimen 'you/you all' are used when there is some reason to highlight the reference to the speaker or hearer (pp663-664).

The question now is how highlighting through pronouns may or may not be reflected in Chinese CMC. According to my sample dataset, there is, indeed, a noticeable tendency on the part of participants in both blog sites and (possibly slightly less so in) MSN chat rooms to highlight referents in e-conversations, particularly through the abundant use of second-person pronouns. Pronominal highlighting of referents was especially conspicuous in heated exchange on Chinese blog sites e.g. current affairs etc. In one discussion thread (between 12 January 2009 and 5 February 2009 at http://www.xin.sg/yourviews/story.php?comment=141602), for instance, there is a noticeably abundant (and perhaps superfluous) presence of the second-person singular pronoun *ni* 'you' (你) (occurrences of this pronoun have been bolded and underlined, for ease of identification). In this thread, discussants got excited and emotional about the reason and the motif behind why an old retired taxi driver would commit the crime of dowsing a politician with petrol setting the victim on fire. The prominent use of the pronoun *ni* comes across as particularly "pointy" in this thread because, whereas this pronoun would normally receive omission elsewhere in "more placid" contexts, this pronoun has been purposely left in the e-conversation as a way of augmenting emotions and directing these emotions in language towards the addressee. It is apparent, then, that users of Chinese CMC exploit this kind of strategy in e-discourse as way of 'getting vocal' at someone, even as a way of 'telling someone off'.

Similar phenomena have been reported in other languages. For instance, Japanese belongs to a so-called "pro-drop" language group because, like in Chinese, it also uses zero pronoun in addition to pronoun as a regular feature of the language. Lee and Yonezawa (2007) investigated the overt expression of first- and second-person pronouns in Japanese and why it is used by Japanese speakers when a pronoun in question could have been omitted. According to them, the overt use of first-person pronoun has to do with the "speaker's commitment to more clearly specify that it is no one but the speaker him/herself", or, in the case of second-person pronoun, to highlight the idea that it is the listener "who is responsible for the action, event or state expressed by the predicate" (p763). One of the conclusions that Lee and Yonezawa (ibidem) reached was that overt expression of first-/second-person pronouns in Japanese has the pragmatic effect of "intensifying the speaker's feeling/emotion".

The Japanese situation is echoed in Chinese discourse, including Chinese discourse in CMC. Perhaps under the security of anonymity, the language of users of Chinese CMC does tend to appear more assertive (aggressive?), more colorful and emotional than other genres within and outside cyberspace, particularly when they feel a need to make an emphasis on referents, including themselves. This is the kind of "attitudinal meanings" that can be generated or "marked" by the deliberate use of pronouns, such as second-person singular *ni* as discussed previously[2]. On the basis of the sample dataset, it appears that first-person pronouns were used when someone wanted to stress that it is they themselves that did something or believed in something, and that they held a strong conviction in their action or belief. Second-person pronouns (singular or plural) were used by online users, perhaps similarly, to point out that it is the addressee "who was responsible for an action, event or state" (as in the Japanese case), though this often had a clearly direct, if not plainly accusatory or even offensive, tone (akin to pragmatically "finger pointing" at the addressee). Third-person pronouns were also used, from time to time, by Chinese CMC users to highlight referents external to both the message writer/sender and the addressees (e.g. external events, people involved in other actions, events or states etc.), though no discernibly emotive tone had been conveyed across. In short, it is feasible to conclude that attitudinal meanings associated with the principle of pronominal highlighting is as much an aspect of the Chinese discourse style in general as it is a visible phenomenon in Chinese CMC, as Li and Thompson (1981: 665), too, observed.

For the cyberscript snippet, I would postulate it as comprising the following components:

'Pronominal highlighting' =

a. when I want someone to know this, I say something like this: "_____"
b. you can't not know this because of this
c. I say this, because I want to think that you think that you cannot not know what I am thinking when I say something more about this

The empty clause in (a), "_____", indicates someone or something being anaphorically referred to by a pronoun. Components (b) and (c) represent to the psychological demands that the speaker is making when s/he uses pronouns to highlight certain information (including information that may already be out there and known to the addressee). Component (c) may sound longwinded and complex, but it is intended to represent the emphasis that a speaker is making on what addressees ought to know already – as well as the somewhat assertive/aggressive, if not impolite, tone of the speaker.

Small Talk

Small talk in Chinese interaction is another area which has been studied, to an extent, though not as extensively as other areas of Chinese interpersonal communication. The most recent as well as the most interesting revelations of the uniqueness of Chinese interaction, in my view, do not come from Chinese *intra*cultural communication but *inter*cultural communication. Ladegaard (2008) has been conducting research in cross-cultural business negotiations in China and reported on observations between a Danish businessman and a number of Chinese sellers in Hong Kong (with the sellers being not only from Hong Kong but also from Chinese mainland). Ladegaard first expressed surprise that a lot of small talk exists in this context because "encounters" were supposed to be "brief and to the point", according to him. On further deliberation, Ladegaard argued that:

…the function of small talk may be two-dimensional: first, it may serve the obvious purpose of establishing harmony and strengthening relationships among the participants; second, it may provide the interactants with a means to indirectly assess the financial viability of their interlocutor without him or her losing face. For example, a very common question in these negotiations – 'where do you live?', 'do you have an office in Hong Kong?' or, 'where is your office?' – allows the buyer or seller to check whether or not s/he is dealing with a wealthy person, and thus a potentially important customer, without any loss of face for either of the participants.

It seems to me that small talk is entirely understandable in Chinese interactional situations such as the above, since 'harmony' is not based on "brief and to the point" negotiation styles that many of us may be used to in many cultures in the West, but on the more informal and perhaps seemingly more 'relaxed', beat-around-the-bush style which may appear to make light of a serious discussion (including business dealings etc.)[3]. Furthermore, as Ladegaard observed, small talk may serve as a mediating strategy in the sense that it can help to ease the potentially ill-feelings generated by the 'cut-throat' nature of serious negotiations so that there would be no violation of *mian zi* 'face' (see section 3.3.4. for more discussions on what *mian zi* is)[4]. Not to mention the advantage of small talk used as a strategy with which to 'test the waters', as it were, on the part of one interactant to establish certain things about the other party in order to identify any potential for further dealings e.g. asking where one's office is located and where one lives etc. may give away important clues as to the kind of financial status that a person holds, therefore allowing the interactant to appropriately 'tune into' the types of further business negotiations that they may be able to have together, if at all.

Does the phenomenon of small talk apply to Chinese CMC? Small talk seems to arise typically when the original topic (based on which the e-conversation started from) is considered insignificant by at least one of the conversation participants. If at least one of the participants sees the starting topic as important, then there will be less chance of a small talk. Though small talk is observed in Chinese CMC, it is probably more evident in MSN chat rooms than in blog sites. The reason is that the topics in blog sites tend to be more significant and consequential – at least from the perspective of the Chinese-speaking participants – than the more casual and relaxed manner of MSN chat rooms. Having said this, if and when an e-conversation touches on a more 'serious' subject in MSN chat room, than this is immediately reflected in the discourse whose participants cease using small talk and begin using a more matter-of-fact, "brief and to the point" language instead. Two examples from an MSN chat room are worthy of closer inspection here ("Facebook" on 8 March 2009):

(3) **Dialogue 1**

1. Chat room user1:要找contract的 loh 'I need to find a contract job.'
2. Chat room user2:可是工钱比较少 'But it pays less.'
3. Chat room user1:对的 'True.'
4. Chat room user2:不过做得开心,钱少一点也没关系 'But it wouldn't matter if they pay you less so long as you are happy in that job.'
5. Chat room user1:^ ^对啊对啊. 什么是送穷日?'Oh yes, what is the day for saying farewell to the God of Poverty?'

6. Chat room user2:今天loh. 初六. 是送走穷鬼的日子. 发呀. 发呀 ‘It's today. The sixth of the lunar month. It's a day for sending off the God of Poverty. Let's get rich, rich!’
7. Chat room user1:哦 原来是这样 ‘Oh, I see.’
8. Chat room user2:你说你说 “Tell me, tell me!’
9. Chat room user1:哈 没要说什么落. 我好累啊. 你会不会累 “ Ha, I've nothing to say, I am so tired. Aren't you tired?’
10. Chat room user2:哈哈 还好啦. 那你去休息吧 “Haha, I am OK. Then why don't you go and get some rest?’
11. Chat room user1:等等再continue. 没时间休息了. 下个拜五要交. weekday 又很忙 ‘I'll continue later on. There's no time for rest. An assignment is due next Friday, and things will get busy during the week.’
12. Chat room user2:好像比工作还要忙 ‘Sounds like things will be busier there than at work.’
13. Chat room user1:对的. 不过做完就可以轻松了 ‘Yes, but then I'll be able to relax after it's all done.’
14. Chat room user2:你可以的啦 会苦尽甘来的 ‘Yes there'll be light at the end of the tunnel.’
15. Chat room user1:对的 ‘Yes!’

(4) **Dialogue 2**

1. Chat room user1:我今年赌博 竟然输钱. 我从来没输过. haha. ‘I lost money this year from gambling. I never lost money before.’
2. Chat room user2:我也输了 ‘I also lost money.’
3. Chat room user1:I mean 拜年的时候 ‘I mean during Chinese New Year.’
4. Chat room user2:我常输. 你输多少?偶尔输没关系啦 ‘I often lose. How much did you lose? Not to worry if you lose on the odd occasion.’
5. Chat room user1:很少. 几块钱 ‘Not much, a few bucks.’
6. Chat room user2:我输了一笔巨款 ‘I lost a huge sum.’
7. Chat room user1:真的?多少?’Really, how much?’
8. Chat room user1:十快钱 ‘Ten or so dollars.’
9. Chat room user2:两个digit liao okay ‘Add two more digits to that.’
10. Chat room user1:haha
11. Chat room user2:我打麻将就一直赢. 赢到手软 ‘When I play mah-jong I keep winning, I win so much that it makes my hand sore.’
12. Chat room user1:哈哈 真的吗 ‘Haha, really?’
13. Chat room user2:千真万确. 哈哈 ‘Yes it's the truth. Haha.’
14. Chat room user1:qsb (= 去死吧. 哈哈 ‘Go and die, you! Haha.’
15. Chat room user2:为什么!?我好难过 ‘Why! Now I am upset.’
16. Chat room user1:说说罢了嘛 ‘I am just kidding.’
17. Chat room user2:不理你了 我去玩game ‘I won't talk to you anymore, I am going to go and play my game.’
18. Chat room user1:哈 好的. 玩得开心点 ‘Ha, OK, have fun.’
19. Chat room user2:你在玩什么?我好饿1啊啊啊 ‘What will you play? I am so hungry. Ah!’
20. Chat room user1:哈哈 你家里没煮吗 ‘Haha, isn't anyone doing the cooking at home?’
21. Chat room user2:没有 我妈在跟阿姨们大麻将 ‘No, my mum and the aunties are playing their big round of mah-jong.’
22. Chat room user1:那你去打包loh 帮她们打包也是. 哦 u mean your mum at your auntie 打麻将?’Then go and get takeaway! You can get some for them, too. Do you mean that your mum's playing mah-jong at your aunties' place?’

23. Chat room user2:不是,我家 'No, they are at my house.'
24. Chat room user1:haha
25. Chat room user2:oh..
26. Chat room user1:那去买东西吃先吧 'Then go and buy something to eat.'
27. Chat room user2:嗯,我去楼下了.你要不要吃?我也帮你买 'Um, I am going downstairs now. Will you eat something, too? I'll get something for you, too.'
28. Chat room user1:哈哈 真的吗 'Haha, really?'
29. Chat room user2:真的 'Yes, really.'

Dialogue 1 began on a more serious note – about job searching – though the initial topic was made light of from the fourth entry onwards. Small talk takes place between the fifth and the eleventh entries where the conversation seems to have sidetracked and the chat room users talk about sending off the God of Poverty and being tired etc. The purpose that this small talk served was to enhance social bonding and to give each other support/rapport – noting at the same time that there is still some connection and relevance to the initial "theme" about jobs and work etc. especially as the small talk came to an end around the eleventh entry. Dialogue 2, on the other hand, never began with a serious topic at all – it started with a discussion on gambling – and small talk was evident between entries 14 and 29. It appears that these chat room users have "known" each other for sometime – even if their mutual identities remained under wraps – and the nature of the small talk was really quite casual and familiar i.e. the chat room users felt it appropriate to make seemingly blunt and "frivolous" remarks (entry 14), ask about each other's personal state of being (whether one was hungry; entries 19 to 29), and finding out about what each other and their families did (playing mah-jong etc.; entries 21 to 25). Interestingly here again, the conversation somehow came back to the initial topic about gambling (mah-jong etc.). In both dialogues, though small talk functioned as a way of tapping into each other's world, ultimately the desired result would have been for interactants to somehow identify any potential for further dealings – not business dealings, necessarily, but dealings of a more personal kind e.g. whether some kind of a friendship could be formed in cyberspace based on mutually shared hobbies and interests, personalities, family background, etc.

Here is a tentative cyberscript snippet:
'Small talk' =

a. if this is not about something very big, people can say more now about many more things with each other about this, because people feel something good towards each other when they do this
b. if this is about something big, people can't say more now about many more things, because people have to think well about this now before they say anything more about it

In (a) and (b), 'this' refers to a given topic and whether 'something is very big' or not represents the idea of the seriousness or importance of the topic. If the matter of the topic is nothing significant, then CMC users can chat on about various things related to the topic or various other things not related to the topic (hence 'people can say more now about many more things with each other about this'). The component 'people feel something good towards each other when they do this' explicates the idea that a small talk is, in essence, a discourse strategy which people engage in as a sign(al) to try and demonstrate that they can be seen to have a harmonious, perhaps even camaraderie-like, relationship. But if the topic is considered serious then, as (b) stipulates, the priority would be to think over the issue and comment on the issue (to 'think well'), rather than talking about other things that don't seem to matter as much i.e. no 'chit-chat' when the topic is serious or important.

Other Discursive Forms

Something needs to be said about Chinese interaction in Singapore in general, as reflected by Singapore Chinese and Singapore English (also referred to as 'Singlish'). While these languages have been influenced by different languages (English, various Chinese dialects, Malay, Tamil, Punjabi, even Japanese etc.), one thing that has been documented is that many a pragmatic or discourse feature common to both these languages has a Chinese origin, notably sentence-final particles such as *lah* (Besemeres and Wierzbicka 2003); *lor* (Wee 2002); *one*, *la* (varying tones), *wut*, and *meh* (J. Wong 2003, 2005 etc.); *leh* (S. T. Wong 2006) etc. (see also Gupta 1992). This is what Wierzbicka (1991: 341) wrote about particles:

There are few aspects of any language which reflect the culture of a given speech community better than its particles. Particles are very often highly idiosyncratic: 'untranslatable' in the sense that no exact equivalents can be found in other languages. They are ubiquitous, and their frequency in ordinary speech is particularly high. Their meaning is crucial to the interaction mediated by speech; they express the speaker's attitude towards the addressee or towards the situation spoken about, his assumptions, his intentions, his emotions. If learners of a language failed to master the meaning of its particles, their communicative competence would be drastically impaired.

Particles in Singapore Chinese and in Chinese-influenced Singlish exhibit every one of the traits described by Wierzbicka, in my view, including the idea that Singapore particles "express the speaker's attitude towards the addressee" in Chinese interaction in Singapore. In Singapore Chinese CMC, though some users practice code-switching between Chinese and Singlish more than other users, the use (including range of particles used) and meanings of particles seem to have remained consistent. Furthermore, the frequency of use appears to be roughly comparable in blog sites or MSN chat rooms, which indicate that particles are an important feature to interactions between Chinese CMC users. Earlier in example (3) (first entry, dialogue 1), the chat room user produced the particle *loh* as in, *hmm… yao zhao contract de**loh*** '(I need to find a contract job' to emphasize what s/he took as a given (between the fellow chat room users and him/herself) that the only option where s/he could still find work was a contract position. This function of *loh* is consistent with Wee's (2002: 723) contention that *lor* "can serve to 'stress the obvious'" (noting that *loh* and *lor* are variants of the same particle). Table 1 lists all the particles identified in the sample dataset, their frequency of occurrences (which goes with the number of sentences to which they are attached), and typical examples.

Code-switching between Chinese and Singlish is a way of life as far as speakers of both languages are concerned in Singapore though, as just described, some speakers do this more frequently than others, and this is something which is reflected in Chinese CMC discourse in Singapore as well[5]. It is interesting that many characteristics of the Chinese language are still preserved even in the process of code-switching. One of the important reasons may be that Singlish is a creole language that is a hybrid between English and Chinese i.e. Singlish itself has preserved many features of the Chinese language. In Chinese CMC, Chinese linguistic features retained even in code-switching include, prominently, reduplication and tautology (mainly English calques on original Chinese linguistic devices). An instance of reduplication can be found in a post by "Bao" on 15 January 2009 (*the 2nd man is a bit "sort sort"* 'the second man is a bit insane'; see http://www.xin.sg/yourviews/story.php?comment=141602) and, an example of tautology can be found in a post by "Talk Rot" on the same date in the same blog (*however, a victim is a victim, my best personal wishes for his speedy recovery*).

Table 1. Sentence-final particles in the sample dataset

Particle (and written variants in CMC)	Approximate number of sentences with this particle	Example
了 廖 ler le liao leow	273	就不帕没油了。'Then there'd be no fear of running out of petrol.' (9394 on 27 May 2008 at http://www.xin.sg/yourviews/commentlisting.php?comment=55385&page=25)
吗 咩 么	186	我应该高兴吗? 'Should I be happy?' (Anna on 3 March 2009 at http://blog.omy.sg/annalim/archives/2483)
的 滴 地 de	155	老实说,这一晚,还挺有趣的… 'To be honest, on this night, it was rather interesting…' (22 at http://www.dasmondkoh.com/%e7%ba%a2%e6%98%9f%e5%a4%a7%e5%a5%96-2009/)
吧 bah	133	考虑一下吧! 'Let's take time to consider it!' (建议 on 11 December 2007 at http://www.xin.sg/yourviews/commentlisting.php?comment=21016&page=41)
啊 ah arh ar	112	它也要生存啊!'It (the mouse) also needs to (find a way to) survive!' (Anarchy_justice on 9 March 2009 at http://blog.omy.sg/tech/archives/920)
噢 哦 喔 oh wor o who	96	真的是很drama喔 "It's really very dramatic.' (chengsun at http://duriantea.blogspot.com/2008/08/blog-post_26.html)
呢 涅	93	何必自相残杀呢?'Why do they kill themselves over that?' (小杰 on 26 September 2007 at http://www.xin.sg/yourviews/commentlisting.php?comment=10473&page=1)
啦 喇 lah la las lar luh	87	不然我就发财啦!'Then I'd have a windfall!' (阿boon on 10 May 2009 at http://www.xin.sg/yourviews/commentlisting.php?comment=168011&page=1)
啰 咯 喽 loh lor lo	61	买屋子就是这样咯。"That's the way it is buying a house.' (Darren at http://duriantea.blogspot.com/2008/08/blog-post_26.html)
嘞 咧 哩 叻 ley leh lei	36	真的很辛苦*Leh* ! 'It's really tiring!' (45 on 19 February 2009 at http://quanyifong.com/%e5%a5%b3%e4%ba%ba%e5%a4%a7%e4%b8%bb%e6%84%8f-2/)
呀	27	真是为老不尊呀。'What a loss of respect at such an old age!'(万子爱人 on 25 September 2007 at http://www.xin.sg/yourviews/commentlisting.php?comment=10473&page=1)
嘛 mah	24	你的英文挺不赖的嘛。'Your English is quite good.' (Chantrice on 7 January 2009 at http://quanyifong.com/%e6%88%91%e7%9a%84%e8%8b%b1%e6%96%87%e4%b9%9f%e4%b8%8d%e9%8c%af/)
Others	17	獻給已經當父母的人,看看下列的教育方式ㄅ… 'Dedicated to people who've already become parents - take a look at the following ways of educating your kids!' (rich on 1 May 2009 at http://tw.myblog.yahoo.com/richard-singapore/article?mid=1244&prev=1245&next=1243)
唷 哟 也 耶 yo	16	哈哈,我也经常走错路也~ 'Haha, I too often take the wrong path.' (二姐 on 14 March 2009 at http://blog.omy.sg/deep-blue/archives/24)

continued on following page

Table 1. continued

Particle (and written variants in CMC)	Approximate number of sentences with this particle	Example
hoh hor	13	猎人头公司在催我了*hoh*!' The company that's doing the headhunt is pressuring me!' (tech on 3 March 2009 at http://blog.omy.sg/annalim/archives/2483)
ha huh uh	11	我头发有没有乱*huh*? 'Is my hair messy?' (Jimmy on 8 September 2008 at http://ahshuiworld.blogspot.com/2008/09/omy.html)
yep ya yeah	11	悲哀丫. 'How pathetic.' (木子鸟人 on 7 May 2009 at http://blog.omy.sg/chimkang/2009/05/06/%e4%b9%92%e4%b9%93%ef%bc%8c%e9%a3%8e%e6%b3%a2%e5%86%8d%e8%b5%b7/)
呐 nah, neh	10	很复杂的投票过程 *neh* 'It's a complicated voting process.' (ParaDoX on http://duriantea.blogspot.com/2008/06/blog-post_30.html)
唦 sia	6	i thought i could see the girl acting rachel in this ep sad *sia* … (bryyan on 14 June 2008 athttp://community.mediacorp.com.sg/TV/CS/blogs/myworldmyblog/archive/2008/06/07/10865.aspx)
Total	**1367**	

Last but not least, Chinese CMC users' choice of words and expressions is also noteworthy in discourse. There are many emotionally charged lexical expressions directed at other addressees, including swear words and words of insult, criticism, sarcasm etc. As a result, linguistic exchanges in Chinese CMC can often come across as candid, harsh and/or unforgiving. Interestingly, it is not only in heated discussions on sensitive or serious topics that users direct these words at others but also, between people who seem to know each other (whether online or offline) who can be seen using abusive, crude and/or rude words at others. Often it is as though it is acceptable in Chinese cyberspace to disregard cultural taboos (that is, if using strong, offensive language is culturally tabooed and ordinarily violates cultural norms), and Chinese CMC users can express any thoughts and emotions about anything without feeling like they have offended someone. Probably the fact that users know that their identities are kept anonymous has something to do with this. An instance of this was seen earlier in example (4) (entry 14, dialogue 2) which showed the chat room user telling the addressee to 'go and die' (去死吧). Instances of crude language abound in the sample dataset, and Table Two below provides a summary of the main kinds of such language use:

In this table, each category of crude language, in its own way, attests to attitudinal meanings of sorts: sometimes Chinese CMC users may employ certain categories of expressions etc. to convey what s/he thinks about something or someone *directly* across to an addressee (e.g. dirty/swear words, curses etc.), though at other times users may want to communicate certain feelings across to an addressee in an *indirect* manner (e.g. sarcasm etc.). Sometimes categories of crude language may have to do with negative feelings or emotions about "third parties" i.e. not about the addressee but about other living or non-living entities in the world (e.g. rude/discourteous expressions about people, things or states of affair in the world etc.). Not all categories of crude expressions have an equal level of negative tone i.e. some expressions sound downright rude, whilst others sound more "subtle" and less immediately hurtful/offensive. Nonetheless, all categories of crude language have,

Table 2. Types of crude language in the sample dataset

Type of impoliteness	Number of blogs/MSN sites with impolite discussions	Number of discussion posts with this kind of impolite language	Example
Rude and discourteous etc.	33	142	这些骗子,丢尽民族的脸;这些打不死的蟑螂,恶心!!'These cheats, the face of our civilisation is lost because of them; they are cockroaches that just won't die, how disgusting!' (ikk on 27 February 2009 at http://www.xin.sg/yourviews/story.php?comment=154495)
"Dirty" language	12	22	妈的你?,一上车让你减2分钱还不够爽! 'F… your mother! You've got 2 cents cheaper for a ride on the bus and yet you are still dissatisfied!' (木子鸟人 on 19 February 2009 at http://blog.omy.sg/chimkang/2009/02/19/%E4%B8%8A%E8%BD%A6%EF%BC%8C%E5%87%8F%E4%B8%A4%E5%88%86/#comments)
Sarcasm	43	352	999,呆不下去就别呆了,不要在这里阻止地球转。'999, don't feel forced to stay here if you don't like it here. Don't stay here and stop the earth from spinning.' (匿名 on 13 December 2007 at http://www.xin.sg/yourviews/commentlisting.php?comment=21016&page=41)
Curse	6	15	几时轮到你?应?? 'When is it your turn for retribution?' (平平 on 15 January 2009 at http://www.xin.sg/yourviews/story.php?comment=141602)

as a semantic common core in their overlapping attitudinal meanings, the idea that a chat room user can say "something bad" to convey in no uncertain terms what s/he feels about something or someone (which is usually about an ill feeling, though not invariably e.g. example (4) earlier in which a chat room user used the curse-like phrase 'go and die' (去死吧)).

To conclude this section, J. Wong (2004) and Wierzbicka (1991) both scrutinized the meanings of selected particles, reduplication and tautologies from an NSM perspective (see Appendices B and C). One thing that the meanings of all these have in common seemed to be that they all have to do with a speaker (including a CMC user) reinforcing certain thoughts and ideas to the addressee ('I want you to think something about something this way (and not another way)'). On the other hand, impolite/rude words and other words in the crude vocabulary are about letting people know in the most direct way possible, what a speaker thinks and feels about something or someone (usually associated with strong emotions or convictions). With these points in mind, here are tentative cyberscript snippets for these linguistic features:

Particles, reduplication of nominal modifiers, tautologies =

sometimes I say something, because I want you to think something about something this way (and not another way): "_______"

Crude language =

sometimes I say something very bad, because I want you to know what I feel/think about something/someone

Discursive Meanings of Chinese CMC

Each of the four subsections in the following presents an important aspect of discursive meanings that arise from Chinese CMC, and it just so happens that a word can be identified in the Chinese language for each of those aspects – which is probably not surprising, since these words can be considered cultural "key words" i.e. words whose meanings embody great cultural significance (e.g. Wierzbicka 1997, 1992). Given limitation of scope, I have not entered into a detailed semantic definition in the way of an NSM explication for each and every one of these meanings, though I have elucidated key aspects of each and every one of these meanings that are most relevant to the overall picture of discursive meanings in Chinese CMC.

One might, however, wonder even at this point why these discursive meanings are worth discussing, if I start out each subsection (as it will be seen) by seemingly ruling out the concept in question (e.g. "non-preservation", "non-differentiation", "conflation", "downplay" of concepts)? The reason is that, given that the discursive meanings encapsulated within these words are so fundamental in the Chinese language and culture generally, the very finding that Chinese CMC represents the exception to the "convention" is compelling and significant cause for investigation and discussion.

Non-Preservation of *Guanxi* 'Interpersonal Networking; Social Connection'

Probably by far the most widely documented notion governing Chinese interaction is *guanxi* lit. 'interpersonal networking; social connection'. Here is what *Wikipedia* online described regarding *guanxi* on 3 April 2009:

At its most basic, *guanxi* describes a personal connection between two people in which one is able to prevail upon another to perform a favour or service, or be prevailed upon. The two people need not to be of equal social status. *Guanxi* can also be used to describe a network of contacts, which an individual can call upon when something needs to be done, and through which he or she can exert influence on behalf of another. In addition, *guanxi* can describe a state of general understanding between two people: 'he/she is aware of my wants/needs and will take them into account when deciding her/his course of future actions which concern or could concern me without any specific discussion or request'.

The term is not generally used to describe relationships within a family, although *guanxi* obligations can sometimes be described in terms of an extended family. The term is also not generally used to describe relationships that fall within other well-defined societal norms (e.g. boss-worker, teacher-student, friendship). The relationships formed by *guanxi* are personal and not transferable. (*Wikipedia*, 3 April 2009, at http://en.wikipedia.org/wiki/Guanxi)

Guanxi is not preserved in Chinese CMC for a number of reasons. Firstly, there is no "personal connection between two people", because the nature of blog sites and MSN chat rooms is so that participants can remain anonymous – unless if they chose to make their identity known to others. There is nothing "personal" between people who do not really know each other. Secondly, even though it is true that bloggers and chat room users belong, in a way, to "a network of contacts", everyone knows that such "contacts" only exist in the world of cyberspace and not in the "real" world of many complex interpersonal relationships. In cyberspace, users know of other "contacts" only by their alias names and, without knowing the real identities of users, there is no need and no reason why anyone would be prepared to be "called upon when something needs to be done". Thirdly, the reason why people choose to stay unidentified in cyberspace is so that they get to say things and express feelings that they would not normally disclose to other people in real-life i.e. it is not possible, based on CMC, that there is "a state of general understanding between two people", since any form of "understanding" through e-discourse is probably not considered genuine reflection of a person. (Of course, if bloggers or MSN users opt to reveal their identities and operate themselves in a way that is not different to how they are in real-life, then perhaps some kind of a *guanxi* connection could be struck; that, however, would not be a prototypical example of why people choose to blog or chat so, in theory, does not form part of our hypotheses about the nature of Chinese discourse online.)

Finally, bloggers and chat room users in anonymous Chinese CMC belong to a special membership of people "that fall within well-defined societal norms". Thus, this kind of people do not need to operate under *guanxi*. It would appear that this is probably the whole point why people choose to log on to blog sites or MSN chat rooms: that they can escape the social or societal entrapping of *guanxi* (if they consider *guanxi* such) in real-life, by doing things (at least when they remain in cyberspace) their way without needing to be concerned over how their action etc. may sustain or violate *guanxi* with other people.

So here is the cyberscript snippet:

'Non-preservation of *guanxi*' =

I don't have to do (good) things for people here the same way I sometimes have to do good things for people elsewhere when I know many people elsewhere

(Note: 'here' = in cyberspace or CMC, and 'elsewhere' = in the real world, offline)

What this cyberscript encapsulates is the essence that neither "favours nor service" needs to be performed in CMC since there is no longer a network of people in cyberspace like in the real world ('when I know many people elsewhere') in which people are expected to do things for one another.

Non-Differentiation Between *Da Wo* 'The Greater Self' vs. *Xiao Wo* 'The Smaller Self'

Closely related to the concept of *guanxi* in the scheme of things with Chinese social interaction are the ideas of *da wo* lit. 'the greater self' and *xiao wo* lit. 'the smaller self'. According to Hsu (1985: 24):

In old China, the thinking scholars used to speak of *da wo* 'greater self' as distinguished from *xiao wo* 'smaller self'. The latter referred to the individual's own desires and actions for him or herself, albeit they might encompass spouses and children. The former referred to the individual's concern for the wider society and even humanity as a whole.

Presumably, then, a Chinese individual needed to know how to appropriately function with other individuals who exist in "the wider society" i.e. people in the world external to him/her, as opposed to how s/he alone would want to operate in his or her own internal world. Questions that arise are whether *da wo/xiao wo* had real-world applications (rather than something that only applied to the world of past "scholars") and, if so, whether *da wo/xiao wo* still apply to contemporary Chinese interrelationships and interactions. Hsu's answers were apparently yes, for he went on to explain how there exist many onion-like psychological 'layers' that determine the socio-functionally appropriate behaviors of a modern Chinese *ren* 'person, individual', and the closer a layer is to the outside, the closer it is to the intersection between an individual and other individuals around him/her in the external world i.e. *da wo* (see Hsu ibid: 28 and related discussions).

Does the idea of *da wo* versus *xiao wo* apply to Chinese CMC? According to the sample dataset, the answer is, no. One important explanation is that the CMC already itself represents a confined domain, not the real world in which a Chinese individual ordinarily lives in the context of "the wider society and even humanity". Even though other people still exist in cyberspace besides the user him/herself whom s/he must interact with, no-one in this specialized and confined domain needs to worry about "the wider society and humanity as a whole", and no-one has to be concerned about letting other people glimpse into his/her internal "desires and actions" because, in CMC, no-one knows the real identity of a blogger or a chat room user and, in turn, no-one is able to trace those internal "desires and actions" that a blogger/chat room user has shared with others back to the same person in the real world offline. In other words, the boundary between *da wo* and *xiao wo* and the psychological layers in between have all but been "fuzzied", probably undifferentiated.

A snippet of a cultural cyberscript may be proposed, as follows:

'Non-differentiation between *da wo* 'the greater self' vs. *xiao wo* 'the smaller self'' =

a. when I am elsewhere, I can't think about people elsewhere the same way I think about people here
b. people elsewhere are not like people here, I have to think about people elsewhere in another way
c. I can't say everything to people elsewhere the same way I can say anything to people here because I can't think about all people elsewhere in the same way as people here

First of all, the contrast between 'elsewhere' i.e. the real world versus 'here' i.e. in CMC in this snippet is an important one, for it is only in cyberspace in which the psychological distinction on *da wo* and *xiao wo* may be relaxed or removed. People "in the wider society and even humanity as a whole" are people in the real world with whom the psychological boundary between *da wo* and *xiao wo* must be set up ('I can't think about people elsewhere the same way I think about people here', 'I have to think about people elsewhere in another way'). And it is only in Chinese CMC where a person does not need to be wary of this psychological distinction, which is why s/he is free to express him/herself ('I can say anything to people here').

Conflation *of Shu Ren* 'An Old Acquaintance' vs. *Sheng Ren* 'A Stranger'; *Ziji Ren* 'An Insider' vs. *Wai Ren* 'An Outsider'

Ye's (2004) discussions of selected Chinese interpersonal relationships in essence concur with Hsu's account; notably, her assertions that a Chinese individual does and say things differently depending on whether s/he is interacting with a *shu ren* or *ziji ren* as opposed to when s/he is interacting with a *sheng ren* or a *wai ren*. Ye (ibid: 217) came up with a diagrammatic representation similar to Hsu's, with the people an individual recognises as *ziji ren* placed in the inner core of the many psychological layers, contrasted with the people an individual regards as *wai ren* placed at the outer layers. The reason: *ziji ren* are those few people who can be granted permission to share an individual's 'intimate' inner world, by that individual, when s/he chooses to share certain inner thoughts and feelings etc. with them, whereas *wai ren* are hardly ever given access to these inner thoughts and feelings, if ever at all. And even though people known as *shu ren* to an individual may lie closer to the inner core than *sheng ren*, it is unlikely that an individual would ever grant either *shu ren* or *sheng ren* license into his or her innermost thoughts and feelings – that is, for so long as neither *shu ren* nor *sheng ren* becomes *ziji ren*. According to Ye (ibid: 216), a *ziji ren* is:

…someone who lives in one place and is a part of a group…whom [the individual in question] can trust…have good feelings about…and who has certain obligations…Arguably, the prototype of people living in one place a s a group in traditional China are family members…who are also related kinship members at the same time (bound by blood relation or marriage).

Thus, it is not difficult to understand why someone considered by a Chinese individual to be a non-*ziji ren* i.e. *wai ren* would not enjoy the same kind of interpersonal relationship or interaction as if s/he were regarded to be *ziji ren*.

In Chinese CMC, however, there is no obvious delineation of *shu ren* versus *sheng ren* or *ziji ren* versus *wai ren*; in fact, there appears to be a conflation of these concepts. Even though bloggers or MSN chat room users belong to "one place" and are "part of a group", they would not consider each other *ziji ren* since their being in cyberspace is not about mutual trust nor having good feelings towards each other, necessarily, but more just about sharing their thoughts and feelings etc. with each other, obligation free, without giving away their real identities. Fellow bloggers and chat room users are never regarded as family-member like – at least not in the prototypical sense of CMC usage – but simply members who use the same e-medium and whom they can share whatever thoughts and feelings with (as they would to family members in real-life). In other words, fellow bloggers and chat room users are not *ziji ren*, but they share information with other interactants as they would with *ziji ren*.

In real-life, fellow bloggers and MSN chat room users are *wai ren* and *sheng ren* but, in cyberspace, their behaviors and attitude towards each other are somewhere between how Chinese speakers would treat a *ziji ren* or a *shu ren*, at least to the extent that CMC users can share certain things with fellow users that they would not normally with *wai ren* and *sheng ren*. In short, the reason why the psychological categories of *ziji ren*, *shu ren*, *wai ren* and *sheng ren* are conflated in cyberspace is that Chinese CMC users can "talk" to strangers and outsiders in this e-medium as though they were old acquaintances or insiders, knowing that, in real-life, no-one would ever be identified (including the speakers themselves) i.e. the categorization of their relationships with other people back in real-life would not be compromised or jeopardized. Here now is a snippet of cultural cyberscript based on this observation:

'Conflation *of shu ren* 'an old acquaintance' vs. *sheng ren* 'a stranger'; *ziji ren* 'an insider' vs. *wai ren* 'an outsider'' =

a. I can say many things to people here in ways in the same way as I've known these people for some time
b. I can say things to people here in the same way as people say things to others when they know who this someone is

If we compare these snippets with Ye's (2004: 214 and 216) NSM definitions of *shu ren*, *ziji ren*, *sheng ren* and *wai ren* (see Appendix D), this cyberscript bears more resemblance with the definitions for *shu ren* and (to a lesser extent) *ziji ren* than those for *sheng ren* and *wai ren*. The reason, as already discussed, is that CMC allows users to talk and interact with strangers as though they were old acquaintances or even "insiders" ('I've known these people for some time' or 'they know who this someone is'), not like in the world outside cyberspace where some people are strangers or "outsiders" and only some people can be regarded as old acquaintances or "insiders".

Downplay of *Mian Zi* 'Face'

Mian zi is one of those words that have received quite a decent coverage in the literature on Chinese pragmatics and discourse. Yu (2001: 10) wrote about the "importance of face as focus of human interaction and relationship". According to him (Yu ibidem):

Since the face is our most distinctive body part on our interactive side, it is naturally the focus of attention in interpersonal interaction. It then becomes the focus of relationship as it is formed between interacting people. Face in this sense is both physical and social.

Yu (ibid: 12) went on to say that:

> Since the face is a sign, indexical or iconic, of interpersonal relationship, if you want to maintain a relationship, you need to keep the face. If, on the other hand, you do not want to maintain the relationship, you no longer need to keep up the face. You can simply 'pull down the face'…Or, you can just 'rip it off', by 'scratching' or 'tearing' it…However, those who still care about the relationship may find themselves 'unable to pull down the face'…[F]ace is really metaphoric, very much like a mask. It is put on, pulled down, or even torn off for the purpose of marking a particular relationship.

Interesting as this description is, it remains to be seen how *mian zi* manages to retain both its apparently "physical and social" sense in the context of CMC interactions because, owing to the nature of what CMC is – that it is communication in cyberspace, rather than in physical form - Chinese speakers do not present themselves in person and 'face-to-face'. According to the sample dataset, while it is still desirable for *mian zi* to be preserved in Chinese e-communication, it is no longer the "focus of attention in interpersonal interaction" the same way it usually is in everyday Chinese communication in general. It appears that, in Chinese CMC where participants' identities have remained anonymous, there is not as much preoccupation with keeping *mian zi* or as much fear losing *mian zi* as in other communicative media in Chinese. As we saw in sections 3.2.2. and 3.2.4. etc. earlier (on the use of pronouns for highlighting and use of crude language etc.), many users of Chinese CMC do not seem to find it necessary to hold back their emotions and, in fact, freely express what they think and feel, even if this may offend someone (e.g. another CMC user, possibly the addressee etc.). Presumably, the reason has to do with the fact that, given the somewhat discreet nature of CMC, bloggers and MSN chat rooms users can "face off" in CMC without worrying about this having a repercussion on them or their *mian zi* back in real-life. Here is another example ("Facebook" on 8 March 2009):

(5) **Dialogue 3**

1. Chat room user2:意思就是你很笨啦~ 'That means you are stupid.'
2. Chat room user1:我就知道有人会这样说 没想你是第一位~ 说得真好~~ 'I knew someone would say that. I just didn't think that you'd be the first one. Well said!'
3. Chat room user2: No... that just means he's a cow.. 努力耕田吧~ 'No that just means that he's a cow…Keep plodding along!'
4. Chat room user1:mei cuo~ 我是一头温柔的牛 别让我变成一头斗牛~ 哞~bywll~ (=不要无聊啦) 'How true's that. I am one tender cow. Don't turn me into a fighting bull..moo…Don't bore me!'
5. Chat room user2: jhs, bys (jhs = 酱好笑、bys = 笨要死) 'How funny's that! How stupid's that!'

In this dialogue, the observation that a chat room speaker has called an addressee 'stupid' and the fact that the addressee has not only willingly accepted this attribute but went even so far as to call him/herself a 'cow' reveal a couple of things. The first is that the chat room speaker seems to have no fear of losing *mian zi* where there would normally be a risk (of losing *mian zi*) when someone calls someone else names (since name-calling in ordinary, non-CMC contexts is detrimental to an interpersonal relationship and can lead to a tear-off of the face for both the "name caller" and the "name call-ee"). The second is that the chat room addressee appears to feel neither displeasure nor qualms about being called names or tagging him/herself with one (where one would normally have a fear of losing *mian zi* since being called 'stupid' or a 'cow' can usually be considered harmful to the preservation of one's face in ordinary, non-CMC contexts). Thus, this example illustrates that the idea of *mian* *zi* is downplayed in anonymous Chinese CMC as compared with ordinary Chinese interactions outside CMC.

Here is a tentative cyberscript snippet:

'Downplay of *mian zi* 'face' =

I don't have to feel bad about myself here when I say anything I want to, in the same way that I can feel something bad about myself when I say many things elsewhere

If keeping *mian zi* on between people is about maintaining a harmonious relationship in the real world – including keeping congenial feelings between people intact, at least superficially – this is not necessary in cyberspace since bloggers and MSN chat room users do not have to 'feel bad' one way or the other, whether people get along or not or whether *mian zi* would get "pulled down" or "torn/scratched/ripped off" etc. Without knowing who people really are like in the real world, there is also no longer the need for *mian zi* to be an issue as people in cyberspace speak their minds.

A Master Cultural Cyberscript for Chinese CMC

The above discussions and their corresponding snippets of cultural cyberscripts can now be summarized as follows - on the whole, even if only preliminarily, into "master" cultural cyberscripts:

Master cyberscript A: to do with Chinese CMC usage

1. people in this place can think about it like this:
2. there are people in one place
3. I am one of these people
4. people in this place can know many things about me when I am here, they don't know anything about me when I am elsewhere (because they can't know who I am elsewhere)
5. I think it is good that people can't know who I am elsewhere (because I may not want people elsewhere to know many things about me when I am elsewhere)
6. I can say anything I want to in this place, because people here can't know things about me in the same way as people elsewhere know something about me
7. I can say anything I want to in this place, because I don't have to think more about what people here feel in the same way as I would have to think more about what people feel elsewhere
8. because of this (components 4 - 7), I can say many things to people here in ways in the same way as I've known these people for some time
9. because of this (components 4 - 7), I can say things to people here in the same way as people say things to others when they know who this someone is
10. because of this (components 4 - 7), I don't have to feel bad about myself here when I say anything I want to, in the same way that I can feel something bad about myself elsewhere when I say many things
11. when I am elsewhere, I can't think about people elsewhere the same way I think about people here
12. people elsewhere are not like people here, I have to think about people elsewhere in another way
13. I can't say everything to people elsewhere the same way I can say anything to people here because I can't think about all people elsewhere in the same way as people here
14. I don't have to do (good) things for people here the same way I sometimes have to do good things for people elsewhere when I know many people elsewhere
15. because of this, I can say what I think when I want people here to know it
16. because of this, I can say what I feel when I want people here to know it

Master cyberscript B: to do with what Chinese CMC users say

1. people in this place can think about it like this:
2. someone has said this before this time ('this' = topic of the e-conversation)
3. because of this, you cannot not know what I am thinking when I say something more about this
4. when I want someone to know this, I say something like this: "_____"
5. you can't not know this because of this
6. I say this, because I want to think that you think that you cannot not know what I am thinking when I say something more about this
7. if this is not about something very big, people can say more now about many more things with each other about this, because people feel something good towards each other when they do this
8. if this is about something big, people can't say more now about many more things, because people have to think well about this now before they say anything more about it
9. sometimes I say something, because I want you to think something about something this way (and not another way): "_______"
10. sometimes I say something very bad, because I want you to know what I feel/think about something/someone

Since components of these cyberscripts were discussed previously in corresponding discussions, I shall only make the following additional explanations. The first is that the two master scripts are not mutually exclusive but, in fact, mutually complementary. It is just that, for the sake of clarity, script A is more oriented towards explicating the possible thinking, attitude and subsequent behavior of Chinese CMC users, whereas script B is more specialized in accounting for the rationale behind what users say and how they say it (including how they present what they say etc.). Secondly (and this point is directed at script A), components (4) and (7) are probably the most central in the sense that these spell out the mindset behind using CMC ('here') as opposed to communication in the world generally, offline ('elsewhere'). Thirdly (and this point is directed at script B), components (2) and (3) deal with the idea of a topic in discourse; components (4) – (6) are focused on addressing anaphoric referencing and using it as a means of highlighting information; components (7) and (8) clarify the conditions for small talk, if it is to take place at all; component (9) relates to the fundamental motivation behind the use of particles, reduplication and tautologies i.e. to reinforce certain thoughts and ideas to the addressee; and, component (10) explains why swear words and other crude vocabulary (which may ordinarily be tabooed outside cyberspace) are used as a way of communicating strong meanings online (including strong convictions and emotions).

The last point that can be put forth here is that, while similarities and overlaps can be expected between these cyberscripts and cultural cyberscripts of CMC in other languages (if and when these become available in other languages), taken as a whole, the Chinese cyberscripts still represent meanings (semantic, pragmatic and discursive) that are unique to this medium in this language and culture. Take component (4), for instance, in master script A. Even though users of CMC in other languages may claim that, they, too, use e-communication because they can stay anonymous, they are not likely to go to claim that turning their back on cultural norms such as *guanxi*, *mian zi* etc. (e.g. components 10 and 14) may be one of the added attractions of communicating online. As for Chinese-speaking people, however, preservation or non-preservation of these cultural norms is a matter of cultural – and personal – significance.

CONCLUSION

Gao (2007: 54, 58, 64 etc.) reported that Chinese CMC is typically "concise and straightforward". But what does this really mean? One possibility is that sentential forms may generally be short and there is a conspicuous "lack" of long complex sentences – which is an aspect that Gao (ibidem) pointed to. The current chapter, too, has found this to be generally the case in the sentential forms used in the sample dataset where sentences were found to be not only short but also often had grammatical mistakes and appeared fragmented or incomplete. This observation was made earlier in section 3.2.1. of this chapter. Nonetheless, despite these apparent formal "blemishes" of sentential forms, it was noticed generally that the linguistic meanings expressed by the language of Chinese CMC users tended to be not only "concise and straightforward" but typically logically connected (and often tightly knit). To the extent that Chinese CMC users do not seem to hold back when it comes to voicing their opinions and feelings online (and understandably so, since their identities are kept anonymous), yes Chinese e-communication can come across as often direct and forthright, even somewhat unforgiving and/or candid (see sections 3.2.2. and 3.2.4. particularly discussions on the overt use of pronouns and crude language etc.). But from the perspective that linguistic exchanges between Chinese CMC users do not remain invariably brief and to the point (and, in fact, sometimes online exchanges seem to "meander" in the sense of small talk discussed in section 3.2.3.), we cannot simply put Chinese online communication down as "concise and straightforward". As we have seen, there is more to the story, so to speak, when it comes to the semantics of human interaction in Chinese e-communication.

In this chapter, effort was made on probing into the range of possible semantic, pragmatic, discursive, contextual and lexical meanings etc. that arise from everyday Chinese interaction in cyberspace. While this form of communication does show some departure from conventional socio-cultural norms in contemporary Chinese language and culture, there remains something linguistically and culturally unique that is rather unmistakably Chinese about Chinese CMC. Chinese e-communication probably presents something of a curious phenomenon inter- and intra-culturally speaking – "curious" in the sense that both non-Chinese speakers (say, speakers of English or another European language) and Chinese speakers might find Chinese CMC surprisingly 'direct', even 'aggressive' at times, but not with complete disregard of traditional cultural values at the same time. This brings us to a related point: though the generalizations made in this chapter are chiefly applicable to *anonymously* accessed Chinese online communication as represented by the sizable sample dataset, it is the contention here that this communicative genre may exhibit both marked differences as well as overlaps with other communicative genres in either on- or offline, anonymous or non-anonymous, Chinese communication. In other words, though anonymous Chinese CMC is characterized by a set unique, communicative features, it would not be surprising if certain aspects of these features are found in certain aspects of the features of other Chinese communicative genres. The reason is that, after all, there must be something (or some-things) that holds all genres of Chinese interaction together as distinctively "Chinese". It seems to me that this contention would be, at least in part, along the lines of what Gudykunst and Ting-Toomey (1988) were suggesting when they pointed out that interpersonal communication and intergroup communication probably cannot be altogether separated. The matter, however, is worthy of further investigation.

The results and discussions of this chapter represent an important step in the direction of applying a seriously semantic approach - that is, the NSM approach - to kinds of linguistic meanings, not only lexico-semantic meanings but also, pragmatic, discursive and contextual etc. in e-communication. The findings in this chapter, however, can be considered preliminary and we do not claim to have covered all grounds. For instance, given the current trends in the latest information technology, some or all aspects of what I have discovered in this chapter may already go out of date at the time of publication. Furthermore, the author is wary that, for instance, examining selected blog sites and MSN chat rooms alone may not be altogether sufficient for examining interaction in Chinese CMC.

The other qualification that should be made here is that, while we are convinced that Chinese e-communication based on data from Singapore reflects, by and large, other contemporaneous Chinese CMC systems, it can be freely admitted that similar analyses in other Chinese CM systems would also need to be conducted before one could unreservedly claim that the current data fully represent all Chinese CMC systems in general. It is quite difficult, if not impossible, for any study to try and encompass every Chinese-speaking region at a time, for that would mean trying to find a generalization that covers millions of Chinese speakers who depend on CMC over great expanses of land and across many regional/provincial boundaries and even international borders. In addition to this, there will always be individual variables arising from certain idiosyncrasies as we analyze data by any group of Chinese-speaking people in any Chinese-speaking region since the Chinese language in e-communication is like the Chinese language in all domains in general in the sense that the very notion itself – what the 'Chinese language' is and, for that matter, what the so-called 'standard Chinese' is – has traditionally been challenged by many a great or small differences that exist within it, including regional, provincial variables as well as other factors including linguistic, cultural and political differences. Thus, what I have attempted here is to analyze or describe a sample dataset as I have done using Singapore Chinese e-data as a starting point and as a window into what we may expect to discover about Chinese CMC, whilst acknowledging the many possible variables and differences that may and do exist in each and every one of the Chinese-speaking territories and communities. And it is not unreasonable to speculate that the current sample dataset may actually represent Chinese CMC in general, since it has almost become a cliché these days that there are no boundaries or borders in cyberspace – which is certainly the case in Chinese-speaking cyberspace. Irrespective of how true this cliché is, the belief here is that we have got to begin somewhere, and I have made a start with Chinese CMC based in Singapore.

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KEY TERMS AND DEFINITIONS

Semantics: Rhe study of linguistic meanings.

Discourse and Pragmatics: The study of human interaction and language use in speech and conversation.

Cross-Cultural Communication: Means communication between speakers of different languages and cultures.

Digital/Electronic Communication: Communication via electronic means, namely the computer and the internet.

Socio-Cultural Interaction: How people interact with one another socially and culturally

Language and Culture: Links and interplay between language and culture.

Chinese Linguistics: The study of Chinese language

Natural Semantic Metalanguage (NSM): A reductive method of semantically complex linguistic meanings, using a set of 60 or so semantically primitive concepts which are also lexically universals.

Cultural Script: Using the NSM of semantic and lexical universals to formulate cultural norms, values, and practices in a way that is clear and precise to both cultural insiders and outsiders).

ENDNOTES

1. This is an important point, since the generalisations that I have made in this chapter is based entirely on the sample dataset focusing on those participants and interactants most, if not all, of whom have kept their identities anonymous.
2. Note, though, that the use of pronouns is not the only way of generating "attitudinal meanings", and some of the other ways of doing so are discussed in section 3.2.4.
3. 'Harmony' is actually a culture-specific concept in the same way as is, say, *wa* in Japanese (and *wa*, too, has been translated as 'harmony' in English). For the current purposes as well as due to scope limitations, however, I will not on an expanded discussion of this concept.
4. In making use of the word 'serious' here and in subsequent sentences, it can be admitted and acknowledged that the 'seriousness' of a topic may be and probably is context- and participant-specific. However, I don't see this as a problem since, as shown in the first segment of the master cyberscript later on in this chapter, 'people in this place can think about it like this:…' addresses this point and refers to only what specific 'people' i.e. bloggers etc. in a specific 'place' i.e. in the context of CMC consider to be true - in this case, whether a topic ought to be considered 'serious'.
5. Though Gao (2007: 58-70) also reported code-switching in Chinese CMC in China, between Chinese and English and between Chinese Mandarin and other Chinese dialects.

APPENDIX A: INVENTORY OF NSM PRIMES

Substantives: I, YOU, SOMEONE (PERSON), SOMETHING (THING), PEOPLE, BODY
Determiners: THIS, THE SAME, OTHER
Quantifiers: SOME, ONE, TWO, MANY, (MUCH), ALL
Mental predicates: THINK, KNOW, WANT, FEEL, SEE, HEAR
Existence, possession: THERE IS, HAVE
Speech: SAY, WORD, TRUE
Actions, events, movements: DO, HAPPEN, MOVE
Life and death: LIVE, DIE
Attributes: GOOD, BAD, BIG, SMALL
Time: WHEN, BEFORE, AFTER, A LONG TIME, A SHORT TIME, NOW, MOMENT
Space: WHERE (PLACE), UNDER, ABOVE, FAR, NEAR, SIDE, INSIDE, HERE, TOUCH (CONTACT)
Partonomy, taxonomy: PART (OF), KIND (OF)
Similarity: LIKE (HOW, AS)
Logical concepts: NOT, CAN, VERY, MAYBE, IF, BECAUSE

APPENDIX B: NSM EXPLICATIONS OF SELECTED CULTURAL LINGUISTIC FEATURES: SENTENCE-FINAL PARTICLES

J.Wong (2004: 782) on the definition of the particle *meh* in Singlish and Singapore Chinese: meh =

1. at a time before now, I thought something
2. something happened now
3. because of this,

I think I can't think like this anymore
I think I have to think like this (anaphoric component)

4. I don't know
5. I want to know
6. because of this, I want you to say something about it to me now

J.Wong (2004: 785) on the definition of the particle *wut* in Singlish and Singapore Chinese: wut =

1. something happened now
2. because of this, I think you think something
3. I say: you can't think like this
4. I can say why you can't think like this
5. I say it now

J.Wong (2004: 785) on the definition of the particle *la (third tone)* in Singlish and Singapore Chinese: la3 =

1. I think something now
2. I think you don't think like this
3. I don't want this
4. I want you to think like this
5. I think if I say something, you can think like this
6. I say it now

J.Wong (2004: 782) on the definition of the particle *one* in Singlish and Singapore Chinese: one =

1. I am thinking about something now: "_________"
2. I cannot not think about it like this
3. you have to think about it the same way

S. T. Wong (2006: 44) on the definition of the particle *leh* in Singlish and Singapore Chinese: leh =

1. think that you haven't thought about (or you didn't know) X
2. X is something like this
3. I want you to think about/know X now.

Besemeres and Wierzbicka (2003: 27) on the definition of the particle *lah* in Singlish and Singapore Chinese: lah =

1. I say this now
2. after what (just) happened
3. because I think you might think otherwise
4. that would not be good

APPENDIX C: NSM EXPLICATIONS OF SELECTED CULTURAL LINGUISTIC FEATURES: REDUPLICATION OF NOMINAL MODIFIERS AND CHINESE TAUTOLOGY

J. Wong (2004: 349) on Chinese reduplication of nominal modifiers -

1. I'm thinking about something now
2. I think about it like this
3. I can't think about it in another way now
4. I think anyone can know why I think about it like this
5. I think anyone can think about it in the same way

Wierzbicka (1991: 424-425) on Chinese tautology -

1. everyone knows: one can say:
2. people/things of this kind are all the same
3. I know: because of this someone can think: this one is like this

APPENDIX D: NSM EXPLICATIONS OF SELECTED CULTURAL CONCEPTS

Ye (2004: 214) on *shu ren* 'an old acqaintance': shu ren =

1. people can think about some people like this:
2. "I have known for some time who this person is
3. this person has known for some time who I am
4. some time before, I could not think like this
5. after this, when I saw this person, I said some things to this person
6. at the same time this person said some things to me
7. it happened like this for some time
8. because of this, I can now say things to this person like people say things to someone when they know who this someone is"
9. people can't think about all people in this way
10. they have to think about some people in another way

Ye (2004: 214) on *sheng ren* 'a stranger': sheng ren =

1. people have to think about some people like this:
2. "I don't know who this person is
3. I can't say things to this person like people say things to someone when they know who this person is"

Ye (2004: 216) on *ziji ren* 'an insider': ziji ren =

1. people can think about some people like this:
2. "these people live in one place
3. I am one of these people
4. I do many things with these people
5. these people can know many things about me
6. I can say many things to these people
7. I can't say all these things to other people
8. when I think about these people, I feel something good
9. when these people want me to do good things for them, I have to do something good for these people"
10. other people are not like this, I have to think about them in another way

Ye (2004: 216) on *wai ren* ‘an outsider’: wai ren =

1. people think about some people like this:
2. “I can’t think about these people like I think about *ziji ren*
3. I can’t say things to these people like I say things to *ziji ren*
4. I don’t have to do good things for these people like I have to do good things for *ziji ren*
5. I don’t want these people to know many things about me”

Chapter 29
Beliefs in GSM Text Messaging Among Academics in Two Nigerian Universities

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ABSTRACT

The chapter investigates the assumptions that academics in two universities in Southwestern Nigeria (namely, University of Ibadan- a federal government-owned institution- and Ladoke Akintola University of Technology, Ogbomoso- a state government-owned institution) work with when sending GSM (Global System of Communication) text-messages. The research on this aspect of GSM interaction, which has received little attention from scholars in Computer-mediated Communication (CMC), is approached, in the present paper, by a random sampling of 400 text-messages from the 'sent' (out-box) compartment of cell phones of academics in the sampled universities. The analysis of the texts is based on insights from contextual beliefs, collaborative theory and implicature. The findings reveal that senders of text messages exploit two beliefs, namely, language-based beliefs and subject matter-based beliefs, which are constrained by participants' conception of co-interactants' relative status in inclusive or exclusive terms, itself a determinant of the degree of the assumptions made. The findings further show that the messages which are based on research and academic activities, themselves covering research and supervision, academic promotion and advancement, general academic matters and academic obligations and assignments, are characterized by a variety of short hands, context-driven indices of assumptions and flouts of quantity and manner maxims. It is concluded that with the high level of assumptions made, aided by various linguistic tools, messages communicated by academics could be exclusive to the in-group members. Finally, future research is invited to compare the beliefs of academics with those of other groups of professionals.

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INTRODUCTION

The Global System of Mobile communication (GSM), has greatly facilitated human interactions globally, and has expanded the limits of erstwhile users of telephone facilities, which means that more people across the world now have access to the new telephone system, which is, by far, more available and facile to operate than the old location-restricted wired, telephone technology. With this development, one expects a large body of scholarly works on GSM communication as almost all humans in the world have used the technology on a daily basis.

It is however surprising that not as much attention as is expected has been paid to language use constrained by the GSM both in terms of the verbal codes engaged during telephoning and those used when sending text messages. The present study is however interested in the codes used in messaging.

STUDIES ON TEXT MESSAGING

A relatively large body of studies has been carried out on SMS or GSM messaging across the world. These include Thurlow (2003)Thurlow and Poff (2009), Yu (2004), Downer, Meara and Selthuraman (2006), Leong, Chen, Leong, Mastura, Mimji Sheikh, Zailinawati, Ng, Phua, and Teng (2006), Robinson, Perkins, Bauer, Hammond, et.al (2006), Weitzel, Bernhardt, Usdan, Mays and Glanz (2007), Herman (2007), Cheung (2008), Opar (2006), Prete (2007), Enli (2007), Ling (2008), Chiluwa (2008a), Hard af Segerstad (2007), Spagnolli and Gamberini (2007), etc.

A number of these studies have been devoted to medical communication as they focus on reminders for patients and treatment (e.g. Downer, Meara, Costa and Sethuraman 2006; Robinson et.al 2006). Some others have concentrated on equally non-language-based issues such as archival discourse (e.g. Herman 2007), pedagogy (e.g. Naismira 2007), politics (e.g.Prete 2007), media discourse (e.g. Enli 2007) and psychological discourse (e.g. Raskauskas and Stoltz 2007).

The language-based studies have explored "the interplay between user relationships and language use" (Thurlow and Poff 2009:4). These include Ishii (2006), Ling (2008), etc. Some others have concerned themselves with the "thematic content or functional orientation of text messages" (Thurlow and Poff 2009:4). Studies in the category include Ling (2005) and Harper (2002). All these studies do not address pragmatic issues, and are therefore not within the scope of the present study. Studies that have pragmatic foci have discussed discourse structures (e.g. Spinalli and Gamberini 2007) and code-switching (Haggar 2007). It is evident that none of these studies has addressed the pragmatic concern of beliefs that occupies the present study.

Many studies on text-messages, with reference to Nigeria, have largely examined the linguistic features of the messages (Awonusi, 2004; Chiluwa 2007; and Mgbenena 2007). Some others, in particular, Taiwo (2008) and Faleye (2008) treat SMS texts as exhibiting a variation of English. Chiluwa (2008b) studies how Pentecostal Christians in Nigeria construct values and sentiments with the linguistic resources engaged in text messaging. One common trend in the studies (with the possible exception of Chiluwa 2008b) is their tilt towards pedagogy. Each of them has considered the samples studied as having some pedagogical implications, especially as it relates to the correct learning and use of English in the second language context. This focus separates the studies from the present one which concerns the pragmatic issue of beliefs.

Going by the space yet explored on text messaging, rare are the studies that have concentrated on the beliefs that background messaging between cell phone users in the global and local (Nigeria) contexts, and rarer are studies that have explored the beliefs of a group with respect to same. This chapter, therefore, charts a relatively new path by investigating the beliefs that go into the messages that pass between academics in Nigeria.

METHODOLOGY

Four hundred text messages were sampled randomly from the cell phones of selected academics in two Southwestern Nigeria universities, namely, the University of Ibadan (a federal government-owned institution) and Ladoke Akintola University of Technology, a state government-owned institution. To collect the messages, which constitute the data for the study, a set of interview questions was administered to 100 academics (50 from each institution) from the two sampled universities. The questions cover information on respondents' age, marital status and sex; and information on receivers of the messages, who also have to be academics, with respect to sex and marital status. Other questions include five messages sent by respondents on a subject: academic or otherwise, reasons for sending each message, and the affiliation of each receiver.

SIGNIFICANCE AND DESIGN

This study is capable of revealing the common discourse topics/subjects communicated between academics and the assumptions that are associated with such, which are expressed through particular linguistic and discourse devices and which both facilitate academics' access to the messages sent and show in-group markings, themselves the motivators for collaborative discourse in the interactions.

In the next section, i.e. section 4, we review the theoretical poles of this study. In section 5, we present our analysis and findings, and in section 6, conclude the paper.

THEORETICAL ORIENTATION

This paper benefits from contextual models, i.e. theoretical descriptions of contexts, which cover, in this chapter, contextual beliefs, packaged by Odebunmi (2006) and collaborative theory (see Brennan and Clark 1996; Clark and Krych 2004; and Davies 2007). It also benefits from the concept of implicature.

Odebunmi (2006: 26) identifies two levels of beliefs in human interaction, namely, language level belief and subject matter belief. Beliefs at the language level presume interactants' understanding of the linguistic codes of communication i.e. speaking the same language and operating with the same set of non-verbal codes, which may be complementary or supplementary. Beliefs at the subject matter level involves interactants' shared knowledge of subjects/topics; shared knowledge of word choices, referents and references; and shared socio-cultural experiences, previous or immediate. "Knowing the discourse topic or subject of interaction enables participants to contribute without hitches and gain a good knowledge of the linguistic items engaged in discourse" (Odebunmi 2006: 28). With respect to word choices, references and referents, interactants need to be familiar with what referring expressions point to in the real world as this would smooth the interaction. Lastly, as Odebunmi (2006:30) points out, "interactions move on smoothly when participants have common socio-cultural and situational experiences"

The fact is that where shared beliefs exist between interactants, collaborative discourse comes in. This is the principle of economy of language use and efforts. The more the information shared by interactants, the less the amount of linguistic output required in communication. This means that interactants work on common ground, which has been "termed collaboration" (Davies 2007:205). Hence, "as common ground is increased through the process of collaboration, speakers can be less explicit – that is, say less - …". In text-messaging, as would be seen later, much is left unsaid, yet no problem of comprehension is envisaged by messagers. This brings in the relevance of the concept of implicature.

The idea of implicature stems from H.P Grice's (1975) co-operative principle which covers the four maxims of quantity, quality, relation and manner. The maxim of quantity specifies that the right amount of information should be shared between interactants; that of quality states that evidence has to be provided for whatever is said by participants in conversations i.e. no lies are expected to be told; that of relation requires participants to be relevant in terms of the information provided; and that of manner advises clarity of expression. Where all these are observed, usually, no implicit agenda is expected as all that is needed would have been provided. But where one or some of these are not observed, implicit meaning is read into the communication. Implicit communication, also named implicature; or according to Haugh (2002) "implications", occurs in five forms, namely flouts, violations, infringings, opting outs and suspensions (cf. Grice 1975; Levinson 1983; Thomas 1995; Odebunmi 2003, 2005, 2006, etc).

As will be shown in the analysis, senders of text-messages work on beliefs/assumptions which are effected by non-observance of some of the maxims. When these maxims are not observed, the knowledge of the absent items is taken for granted between interactants, and the information passed goes across without hitches.

ANALYSIS AND FINDINGS

Two broad subject matters characterize the data i.e. text messages sent by academics in the University of Ibadan and Ladoke Akintola University of Technology. These are research and academic activities, and social service and activities. For reasons of space, only the former is handled in this chapter. Each of the sub-varieties of research and academic activities is given attention below.

RESEARCH AND ACADEMIC ACTIVITIES

Four sub-varieties are associated with this subject matter, namely, research and supervision, academic promotion/advancement, general academic matters, and academic obligation and assignment. The first: research and supervision relates to supervisor and supervisee interactions, academics' collaboration, information regarding research and meetings; while the second: academic promotion/ advancement, covers activities and matters relating to the promotion of academics from one grade level to another, general academic matters including registration of courses, computation and processing of results, writing of academic papers, course teaching, paper presentations and appointments; and academic obligations and assignments relate to seeking favors from colleagues regarding teaching and other academic engagements.

In these issues, academics' assumptions/ beliefs work largely on the employment of non-conventional symbols, tokens of informality, and abbronyms (abbreviations + acronyms). In the words of Odebunmi, (1996:249), while coining the term abbronymy.

It is difficult to tell acronyms from abbreviations even given the seemingly helpful approach of Quirk and Greenbaum. Their first type of acronyms tallies with part of Ralph de Sola's abbreviations, their second type is in consonance with his in pronuounceability….

He, therefore, defines an abbronym as a "letter representation of a group of letters, words or phrases, which may or may not be pronounceable" (Odebunmi 2006: 47 [1996]). This immediately tells an abbronym from an acronym or an abbreviation. In the literature, an acronym is

Table 1. Symbols in research and supervision messages

Formation process	Non-conventional symbol	Full form
1. Sound manipulation	U av c matas ofis	you have see matters office, etc
2. Figures and sound manipulation	2ru	through, etc
3. Deletion	Shd bk	should book, etc
4. Figures	4 2	for to, etc
5. Sound and graphological manipulations	Ur	Your, etc

usually defined with respect to pronounceability of initializations, while an abbreviation is usually not so defined. Odebunmi (1996) identifies two types of abbronyms, namely, simple and complex. A simple abbronym is predictable from the full form, e.g. Obafemi Awolowo University (abbronym: OAU). A complex abbronym, on the other hand is not predictable from the full form, e.g. Ladoke Akintola University of Technology (abbronym: LAUTECH, which, if a simple abbronym, would be realized as LAUT, with each initial letter selected).

The expectation of the interactants in GSM messaging is that the linguistic and discourse items would register well in terms of meaning with receivers without necessarily being explicit because of the background they share. The background here includes both the language symbols used and the subjects discussed. This means that much of the assumptions is made on the basis of interactants' mutual access to the non-conventional symbols and abbronyms employed. Further assumptions are made on the basis of rating of association level, which necessitates the choice of tokens of informality depending on the relationship between interactants. However, as will be shown later, not all the sub-classes have non-conventional items attached to them as they are strictly formal communications. Yet, assumptions are made in the messages with regard to subject matter beliefs. The sub-varieties of research and academic activities are taken in order below.

Research and Supervision

Research and supervision employs the highest number of non-conventional symbols. This is consistent with the general cordiality that largely exists between supervisors and research students. This subject is marked by non-conventional symbols which are formed through sound manipulation, a combination of sound manipulation and figures, deletion, figures, and a combination of sound and graphological manipulations. The table below shows these items and their formation process.

Table 1 shows that certain sounds are manipulated with reference to the full graphological forms of certain words for shortening effects. Such include 'u', formed from the actual pronunciation of the word 'you'; 'av' from the pronunciation of 'have', etc. '2ru' is a combination of the figure '2' and the simulation of the phonemic unit/θru:/. In 'shd' and 'bk', 'oul' and 'oo' are respectively deleted. Figures '4' and '2' are used respectively to represent the prepositions 'for' and 'to', which sound like them. In 'ur', the sound 'u' from 'you' is joined to the letter 'r' ending 'your' to graphologically complete the structure. These short hands are consistent with the findings of Thurlow (2003), Bush (2005) and Chiluwa (2008).

In sending messages relating to research and supervision, senders rely on receivers' knowledge of these items, and, consequently, freely engage them in the mails, for example:

Ex 1:

U don't av 2c me. Ur paper is sent 2ru X. All matas wt me shd be in my ofis.

In the mail, where according to the information from the sender, who is the student's PhD supervisor, the reaction of the supervisor is being communicated to the student regarding the latter's rude and improper action. Items such as 'u', 'av', '2', 'c', 'ur', '2ru', 'matas', 'wt', 'shd' and 'ofis' were taken for granted as part of the context, and the receiver was expected to access them on the same basis.

Academic Promotion and Advancement

Very few cases of mails of this class were found in the data. This might be due to the fact that in most Nigerian universities, issues of promotion and advancement are generally preferred to be discussed interpersonally rather than through mediated communication. In other words, much secrecy is associated with such issues.

Only "L II" (i.e. Lecturer grade II), a combination of a deletion and a figure, is found in the mails studied. The text that follows explains this:

Ex 2:

Just promoted to L II. Expect me by weekend [sic]

This further shows the formality associated with the issue of promotion and advancement. Much as no informal tokens, abbronyms or non-conventional symbols are used in the mail, some assumptions are still made despite the formal nature of the text. The first sentence indicates an omission of "I have", which exemplifies a flout of the Gricean quantity maxim. If no clear background is shared between interactants regarding the referent and his/her career, the text is not sufficiently explicit to provide information about the beneficiary of the action described by the verbal phrase "just promoted"

In another instance related to academic promotion and advancement, no non-conventional symbols and informal tokens are used. This is demonstrated in the text below:

Ex 3:

Asking for clarification [sic] on promotion guide-lines

This is obviously a reply to a mail sent by another lecturer, probably a senior colleague, which might inform the absence of colloquialisms in the text. It, however, goes with some other levels of belief as in Ex.2. The subject and the 'be' auxiliary

Table 2. Academic matters: non-conventional symbols

Non-conventional symbol	Example	Full form
1. Deletion	thru dept Ib	through department Ibadan
2. Sound manipulation	gud t^ks	Good Thanks
3.Sound and graphological manipulation	Ur	Your

verb 'am' are absent, which ordinarily makes it difficult to pick out the actor. With no clear shared knowledge of the subject matter, the text could be taken as a discourse topic or, with a question mark, an interrogative. But as a reply to a mail, whose content was known to the receiver, the text should be sufficiently clear, and no mistake about the identity of the writer or actor should occur.

General Academic Matters

Mails on academic matters are characterized by *non-conventional symbols, informal tokens* and abbronyms. These are tabulated below.

Tables 2 – 4 show the linguistic and discourse items that are deployed in mails on general academic matters. In the category of non-conventional symbols, only deletions, sound manipulations and a combination of sound and graphological manipulations are engaged. It is obvious that in 'thru', 'ogh' is clipped, and the actual sound in the slot exploited. In both 'dept' and 'Ib', many letters are deleted. Under sound manipulation, the sounds 'u' and '^' (though incorrectly selected as /æ/ is expected) are played upon. 'Ur' remains the same as in Table 1. In table 2, colloquialisms, with deletions of 'o' (in not), 'a' (in 'am'), 'i' (in 'is') and 'wi' (in will) occur. In table 3, course codes (e.g. CLL), institution names, (e.g. ABU), titles (e.g. Dr.) and office names (e.g. HOD) are abbronymised.

In all the cases of symbols and abbronyms, the linguistic and discourse elements are used as given, which presupposes shared knowledge of the items. In the instances of informal tokens, a lot of familiarity is displayed, which shows the intimate relationship between interactants. Two examples from the data will suffice to explain this point:

Ex 4:

Good day madam, [sic] dont (sic) forget CLL 301 by 11am. I'm thru with my part. Have a nice day.

The tone of the text suggests convivialty between the interactants. Expressions such as "madam" and "have a nice day" index this. The cordiality/intimacy is further shown by the choice of informal tokens: "don't" and "I'm" which normally occur in communication either between peers or in relaxed or casual conversational contexts. The knowledge of "CLL 301" is taken for granted; hence the receiver is simply being reminded. And the background knowledge of the co-teaching being done is expected to aid access to "thru" which could be misconstrued as "thrown" in other cases/ contexts. Also, the co-texts, "I'm… with my part"

Table 3. Academic matters: informal tokens

Informal tokens	Full form
1. Don't	Do not
2. I'm	I am
3. What's	What is
4. I'll	I will

Table 4. Academic matters: abbronyms

Abbronyms	Example	Full form
1. Simple	CLL	Communication and Language
2. Simple	ABU	Ahmadu Bello University
3. Simple	Dr	Doctor
4. Simple	HOD	Head of Department

and "don't [sic] forget CLL 301" would further contribute to the understanding of the item.

Shared beliefs are also manifested in the text below on general academic matters:

Ex 5:

That's fine. I have received the details of the ABU students

The referent of the phrase "ABU students" was shown to be shared by the particulariser "the". This knowledge further presupposes the sharedness of the full form of "ABU – Ahmadu Bello University". In fact, "the details" imply, maybe in a pre-dating mail or interpersonal interaction, a previously discussed issue, all of which bring into force the principle of collaboration which, of necessity, reduces the verbalized contents of the message.

The issue of appointment constitutes a very small portion of the data on general academic matters. This might be due to the fact that appointments are generally formally communicated, and not shared, by way of discussion, on phone. The only case of communication of appointment issues found in the data is that of the appointment of an academic (the receiver) as a referee of a journal:

Ex. 6:

You have been nominated as a referee for one journal article in India. Feed me back whenever you are contacted from India.

In Ex. 6, no use of abbronyms, non-conventional symbols and informal tokens is manifested. Yet, despite the dominance of new information, the knowledge of the job itself is shared: "a referee", itself the index for collaborative communication between the interactants. The semantic scope of "referee" is immediately narrowed by "for one journal in India". The sender exploits the professional knowledge shared with the receiver with respect to the script of a referee: details of the job description and duties are expected to be known by the receiver.

Academic Obligations and Assignments

This category of issue constitutes a significant segment of the data as academics, necessarily, seek one obligation or the other from one another, or assign duties to each other, especially in situations of asymmetricality.

The mails sampled in this category are largely characterized by deletions (e.g. "pls", for "please") and abbronyms (e.g. "LH" for "Lecture Hall", and "UI" for "University of Ibadan"). Most of the mails in the class do not feature these items, yet there are, in them, signals for pragmatic assumptions. Two examples will be drawn from the data to explain the linguistic resources engaged:

Ex. 7:

Please, take my class for me. 2.00pm, LH.

Many assumptions are made in this text. The most obvious is that made with "LH" (the venue of the Lecture being delegated). Being members of the same University Community, the writer considers it unnecessary to spell out the full form of the name of the venue which the receiver is expected to know.

Other assumptions are made on the basis of shared professional knowledge. For example, "take" presupposes "teach" especially when taken along with "my class". "Take…class", which in this context entails the course to be taught, assumes the receiver's knowledge and or competence of/in the course. The only new element in the communication is "2.00pm", which provides information about the time the course is to be taught.

The text below covers the same subject as in Ex. 7 with variation in the realization of "please":

Ex. 8:

Pls, I will not come to school tomorrow [sic] help me to take my class[sic] 5 O'clock.

"Pls" is the reduced form derived from the deletion of "eae". The same variables for "take", "class" and "time" (5 O'clock), as for Ex. 7, apply here. The only exception is the item "School" which works on the inclusive knowledge of the interactants, which, therefore, is expected to be interpreted as the institution in which the two work.

CONCLUSION

It has been demonstrated in the foregoing that academics in Nigerian universities work on two assumptions when sending text-messages: language and situation level beliefs, which are respectively characterized by non-conventional symbols, informal tokens, abbronyms, and flouts of quantity and manner maxims; and shared knowledge of subject matter, shared professional knowledge and in-group membership. Text-messaging among the group is thus shown to reflect the range of activities engaged in by these professionals. Invariably, the in-group nature of the linguistic and discourse items selected is capable of leading to exclusive communication as non-professionals or out-group members may be incapable of coming to terms with the communicative tools engaged, even when some of the items are distributed in the messaging of other social and professional groups. Future research can, therefore, compare the beliefs of other groups with those of academics to identify the convergences and divergences.

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KEY TERMS AND DEFINITIONS

Asymmetricality: This refers to the unequal rating of status of discourse participants in social or professional terms. In other words, factors such as greater/lower age, higher/lower status, etc are indices of asymmetricality. These are brought into human interaction through certain linguistic and discourse markers.

Collaborative Discourse: This refers to the human interaction in which participants share knowledge of communicative codes and subject matters, and therefore do not need to provide elaborate (new) information in communication.

Contextual Models: Contextual models are theoretical descriptions of context. These assist scholars and individuals to systematically account for contextual variables and meaning in human interaction.

Discourse Topics: These refer to issues or subject matters that are discussed or hinted at in communication

In-Group Marking: This points to discourse identification of members of a social or professional group through the use of certain linguistic items.

Tokens of Informality: Tokens of informality are linguistic items that index informal communication.

Verbal Codes: Verbal codes refer to linguistic, as against non-linguistic, items used in communication.

Chapter 30
Functions and Strategies of Email Communication at the Workplace

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ABSTRACT

Email communication has been the communication medium for most organizations nowadays as the Internet has become a way of life for most people. To serve the purposes of communication in organizations, email is used to coordinate action, share information and satisfy social needs. This research was carried out to examine the patterns of email communication in a public higher education institution in Malaysia. A total of 86 emails consisting of 40 email chains and five one-way communication emails were collected over a period of four weeks. These emails were analyzed for functions and strategies used by the email writers. It was found that writers of email are aware of the strategies available for disseminating information and they used the strategies differently depending on the situation, the people involved in the interaction and the subject matter.

INTRODUCTION

Communication in organization serves three major purposes: to allow members to coordinate action, share information and satisfy social needs. Email communication has been the communication medium for most organizations nowadays as the Internet has become a way of life for most people. More and more businesses are capitalizing on the Internet to help market goods and services, get customers and increase networking.

In the context of workplace communication in Malaysian organizations, Bahasa Malaysia (BM), the official language is used as well as English. English is considered the language for business and trade and also the second language for those who were born during the colonial era. However, to those who were born after Bahasa Malaysia was accepted as the official language, (after Malaysia received her independence from the British), English might

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not be a second language but may be a third or even a foreign language. Thus, most Malaysians are bilingual and some are multi-lingual and consequently, both BM and English are used in email communication. The increasing use of email as a communication medium in organizations has prompted a number of researchers to investigate email discourse. Habil and Rafik-Galea (2005) maintain that code switching instances in email messages are rather common when communicating among Malaysians. In fact, code switching was used as a manifestation of power because it allows the person having higher managerial positions to switch to another language to control the act of switching codes. Alsree (2000) pointed out that email messages range from highly informal to highly formal and that it has changed people's habits of composing, planning and editing communication at work.

The research mentioned above were conducted within the business and manufacturing environment. Are there any differences in the email communication of a public, higher education institution? To answer that question, a mini research has been carried out to examine the patterns of email communication in a public higher education institution in Malaysia. It was carried out to answer the following research questions:

1. What are the functions of email messages?
2. What are the strategies used in the email communication?
3. What other elements/factors influence the construction of email messages?

BACKGROUND

Email communication has been the preferred channel of communication, internal and external, for most organizations in Malaysia nowadays. To serve the purposes of communication in organizations, email is used to coordinate action, share information and satisfy social needs. A number of studies were carried out by researchers to examine the usage of email and to understand how people use email to communicate at the workplace. Habil and Rafik-Galea (2005) who investigated email discourse in Malaysian organizations, found that the language used in email communication in organizations reflected the expressive values of words. These values represent the social identity assumed by individual members in the organization. They also reported that organizational and local culture play important roles in shaping the electronic business discourse of organizations. Alsree (1997) reported that politeness as a face-saving strategy was one aspect that people consider when communicating via email. Habil (2003) summarized that there were two noticeable patterns of email in manufacturing organizations in terms of language style that are formal style of language and conversational style of language. This was also the findings of Gains (1999) who reported that certain types of messages were written in conversational style as opposed to the more formal one. In addition, Gimenez (2000) also stated that organizational members tend to write email messages using a more flexible register than both spoken and written language. Moreover, Jariah and Chong (2003) highlighted that writers of email in organizations were careful with their choice of words to show appropriate politeness and respect in order to maintain harmony at the workplace. Besides that, Abdullah (2006) also reported that writers of email were aware of their readers and made choices about the content, language code, register and tone in their email messages accordingly. This also includes the choice of the types of salutation and closing to use in the emails.

Other researchers who have investigated the use of email in organizations include Rice (1997), Sims (1996), and Ziv (1996). Rice (1997) investigated email messages of four organizations and found that writers of email combined elements of formal and informal discourse. Sims (1996) analyzed emails in two corporate workplaces and discovered that both companies showed evidence of linguistic features of written and oral discourse in email messages. In addition, Ziv (1996) reported that messages in email are articulations of the participants' relationships in an ongoing dialogue. Thus, the language used in email is influenced by factors other than the normal conventions of writing. This finding suggests that there are other factors that affect the choice of language in email messages.

METHODOLOGY

A total of 86 emails were collected over a period of 4 weeks. Those emails can be divided into 40 email chains and 5 one-way communication emails. An email chain refers to a series of interactive emails discussing the same subject as a result of the initiation-response-feedback sequence forming a chain. The emails were collected from an informant who was an academic at a public higher education institution in Malaysia. The emails were sent to a mailing list where all academics in the faculty are members of and have to subscribe to the list. Besides the academics, administrators and supporting staff are also required to subscribe to the mailing list. This is because there might be a need for the administrators to communicate with the academics and all staff.

This list is the main communication medium besides the traditional paper memo, face to face, telephone and notice board messages. It is the vision of the new faculty dean to have a paperless office as much as possible. Thus, the mailing list is the channel for most quick, speedy and convenient dissemination of information. There are about 200 academics, 2 non- academic administrators and about 30 supporting staff in the faculty.

The emails were analyzed for functions and strategies used by the email writers. The members of the mailing lists are academics comprising junior and senior lecturers, with a few holding administrative positions in the faculty. In addition, a few of the lecturers assumed the roles of head of committees or panels although the roles are not considered administrators of the faculty. Thus, the email texts demonstrated interactions mostly horizontal in nature while some emails depicted downward as well as upward communication.

FINDINGS

The email communication analyzed showed that 75% of the total emails were sent horizontally, that is, sent to peers having the same level of authority. Thus, most of the emails did not have greeting (47%) while 56.8% of the emails did not have closing. Crystal (2001) explains that within institutions where email is mainly used for sending out information and instructions to all members of staff, a personalized greeting is not necessary. For those emails with salutation, the most popularly used was *ASW/AWB* (12.5%), *Dear…*(11.4%) and *Salam* (11.4%). *ASW/AWB* is the short form of *Assalamualaikum..* – a greeting in Arabic. *Salam* is also a shorter form of *Assalamualaikum* which is considered a more proper way of greeting if the original greeting in Arabic is not used. It is then a common practice to find writers of email using the two versions of the greetings besides the common salutation *Dear.* This finding is supported by an earlier study by Habil and Rafik-Galea (2005) who found that the use of an Arabic salutation have created a new greeting pattern in email communication and has become an accepted practice.

Most of the emails with a closing showed that the writers used Thank you / TQ (14.7%) and others such as *Cheers, wassalam* ('signing off' in Arabic) and *Terima kasih* ('thank you' in BM). However, majority of the emails (56.8%) did not have closing.

The absence of salutation and closing in email messages indicated that members of the faculty view email communication as a dynamic and interactive process where an email message is not the only message but it will be a beginning of an interaction. Thus, there is no need for a 'formal' salutation and closing for each email because they are expecting to receive more emails. Besides, everyone in the mailing list knows each other and this influences the choice of words and the way of writing email messages.

The Functions and Features of Emails

The findings indicated that the emails fall under the speech acts categories of representative (72.7%), directive (17%), expressive (6.8%) and commissive (3.4%). Most of the emails under the representative speech acts were written to inform procedures, report progress, ask questions, and make announcements. Those under the directive speech acts were written to give directives while the emails under the expressive speech acts were written to express opinions and feelings. Those under the commissive speech acts include promises to do something. These findings are similar to Habil's (2003) taxonomy of speech acts identified in email messages of organizations.

Since the emails were communicated through a faculty mailing list, the language style used was mainly formal style (61.4%). Some did use the conversational style (22.7%) while a few used informal style of language (12.5%). Despite the fact that the majority of the faculty members were of the same ethnic group i.e. Malay with a small percentage being Chinese and Indian, English was the language used in most emails (73.8%). A combination of English and BM was used in 13.6% of the emails while BM was used in 10.2% of the total. One possible explanation is that the faculty has a few international contract professors and lecturers and thus, English is the language used in the email. A small percentage of the emails (2.2%) did not have any message in the body of the email but contained only attachments.

Most of the emails (75.0%) were sent to the same level of authority, representing horizontal communication while 15.9% of the emails represented downward communication, 4.5% were sent upward and 4.5% were sent across departments. The high frequency of horizontal flow of messages is probably because email is used by members to interact to accomplish their tasks. Thus, they communicate via email to issue directives, to notify processes, and to promise action, among other things.

It is interesting to note that the emails written in BM were mostly sent to make announcements (samples 1a and 1b) and only one was a directive (downward flow) to a technician to check the computer of one of the lecturers (sample 1c).

1a. *Mulai 5 haribulan, semua staf boleh mengambil Buku Harian 2009 di Pejabat Am. Terima kasih. Harap maklum.* (Starting from the 5th, all staff can collect the 2009 diary at the Main Office. Thank you). [announcement]

1b. *Disertakan borang baru SKT untuk maklumn semua* (Enclosed is the new SKT form for all). [announcement]

1c. *Boleh tolong tengok kan computer dr x* (can you please have a look at dr x's computer). [directive]

The other emails in BM were sent to announce an illness of a staff, the functioning of the new air conditioning system in lecturers' rooms, and a server shutdown during a public holiday. Those emails were sent by administrative staff and lecturers in charge. All the emails were written in formal Malay language (BM).

Coordination of Actions

One of the main purposes of communicating in organizations is to allow members to coordinate actions. Coordinating actions was the purpose of most emails analyzed. Most of the emails collected during the period discussed issues about writing and publishing because the university has come up with a requirement that all research findings that have not been published had to be turned into journal articles or book chapters and sent for publication. The requirement had triggered a lot of email communication among staff discussing the issue. This can be seen in many of the email chains discussing the publication of research findings. In addition, a proposal by the dean to conduct the faculty meeting using a new approach had also attracted a number of emails discussing the subject. When coordinating actions, writers used the informal / conversational style or formal style of language in the email.

Informal and Conversational Email

The formal style of language in email was characterized by the use of formal tones, complete sentences and detailed descriptions of the content that closely resembled the formal written conventions. On the other hand, the conversational language was characterized by the use of a conversational tone, the use of minor sentences, excessive use of paralinguistic cues, ellipsis and the use of a subject as an understood reference to a past event (Habil, 2003). The use of conversational language can be regarded as representing informal language.

The emails in the G chain depicted interactions between two colleagues from two different faculties. The chain consists of 8 interactive emails and the subject of the emails is Book Chapter. The language styles used were informal and conversational. The language used was a mixture of English and BM since the writers code-switched between English and BM and vice versa [samples 2, 3 and 4]. Several paralinguistic features can be found in the emails such as the use of dots at the end of sentences, exclamation marks, emoticons and question marks [samples 5,6]. In samples [3,4,5,6 and 7], all the words at the beginning of the sentences were written using small letters.

2. *Harus tak sempat. tapi sebenarnya bila tengok* (probably not enough time. But actually when looking at) other chapters and it is only 12-15 pages with that small size format, it is not much to write about.
3. make sense..,so what can I do? how may I help?
4. how can you help? Well just write anything first and then we consolidate…
5. after this, we really have to go for the book on eportfolio---nxt immediate project ;-))
6. alright..deadline yesterday?? I'm editing the book for xxx (my dept) so I'll try *lah yer asap* (as soon as possible)
7. he he…deadline yesterday.

The email interaction among the two was informal and conversational probably because the two interactants knew each other and had worked together in projects before. Thus, their interaction was collegial. This closeness has prompted the use of paralinguistic features in the email messages – to show closeness and to indicate 'teasing' in the messages written.

The shift from BM to English and vice versa also projected the informality aura between the two. According to Habil and Rafik-Galea (2005), code switching in horizontal communication is used as a means of showing social cohesiveness. In [6], the words in italics are BM words – *lah yer* are two words usually used in spoken interaction at the end of sentences to check understanding. The word '*asap*' is the acronym for 'as soon as possible'.

In the emails analyzed in this study, code switching was used as a strategy that empowers people in authority to select which language to use in what situation but not as an acceptance of inequality in the status of members in organization as reported by Habil and Rafik-Galea (2003).

Formal Email

On the other hand, when coordinating action among members within the faculty, some emails were written in formal language style. One email chain, Chain AF consisted of 2 interactive emails discussing the title of a book to be published. The first email in the chain was initiated by the dean and it represented a downward communication. The message was written in English, but the greeting was written in BM.

8. *Awb rakan2 sekelian* (Greetings to all friends)

Please take note of the request by our partner. Those involved please reply directly to Z, tq.

Awb is the short form of *Assalamualaikum..* – a greeting in Arabic. The message was written in formal English and the directive was given using imperative Please + verb.

An attachment was provided where those concerned were expected to read and respond.

Another email sent by the dean on the same subject was also written in formal English. The greeting in this email directly stated the intended recipients even though the mail was sent to the mailing list. This is to ensure that the two names mentioned would take note and respond accordingly.

10. *AWB and SS* (greetings)(especially to Dr K / Dr S)

Attached are two chapters from AAA cell. Please compile them into the relevant books as per what was discussed just now. Burn the CDs by 0800 *esok* (tomorrow) so that we can send them to the editors.

Sample 10 shows another instance of the use of imperative, 'Burn the CDs..' and 'please' imperative, 'Please compile them…'. The word 'please' was used to soften the force of the directive. 'Please' is a politeness marker and it was used in the imperative sentence to hide the directive force of the utterance. The construction of sentences in the declarative or imperative conveys the formality intended with the recipients.

Sharing of Information

The second purpose of communication in an organization is to share information. From the email communication analyzed, about 20% of them were sent to share information. This was done in the form of forwarded announcements from outside the faculty or in the form of messages written to inform about events, situations and current issues of concern to the faculty members.

11. Another invitation for RA (Research Alliance)

This message [11], was a one-line message without any salutation. The announcement was sent to one member of the faculty who is the head of a unit. He forwarded the message to the mailing list so that everyone would know. The forwarded message was from a unit outside the faculty looking for members who are interested to join their research team. The announcement which was posted at the end of the email was written in English using formal language style.

Sample 12 below depicts an email sent to inform about an event to be held in the university.

12. Thank you for those who have registered for the briefing of the Toastmasters Club. Here is the latest update on the programme schedule. For those who have not registered, please contact abc@xyz.org or call 0123456789.

This email did not have any salutation. It started straight away with the information. There was no response to the email sent via the mailing list probably because a telephone number and an email address were provided for those who have any enquiry about the subject.

Another example of email sent to share information is depicted in Sample 13. Sample 13 was sent to inform all faculty members about a completed task that might interest some members.

13. dear all, the videos for the above briefing have been uploaded on the faculty website. front page of the 'xyz' website>bottom-right-corner..click dean speeches.

The email was written by the IT manager to inform everyone that the video was ready to be accessed. The writer used all small letters and a common salutation 'dear all'. This was probably because the writer wanted to appear informal and 'at the same level' with the recipients of email.

Another type of email written to share information is to inform about situations or issues of concern to the faculty members.

14. I'll be away in KL for work today and tomorrow. In my absence, XXX will be the head honcho. I'm curious to know the progress of book chapters from the rest of the crew… Remember the deadline is 22 December 2008 which is just around the corner…we need to work extra hard even over this coming weekend guys!!!

Sample 14 is an email representing a downward communication. The message in the sample above was the first paragraph of a longer message. The dean wrote to inform about his absence from the faculty and nominated his deputy to be in charge. The word 'head honcho' used was colloquial. He also gave a reminder of the deadline. He ended the first paragraph by using the word 'we need to…' The 'need' statement refers to 'require' or 'demand' which implies "internal obligation caused by the state of the person referred to" (Leech and Svartvik, 1975:144). The word *need* is also used as replacement of must. However, the force of a 'demand' was softened by the use of paralinguistic features (!!!) at the end of the sentence.

In the rest of the message, the dean emphasized his expectation of the work to be completed by the end of the month. He also gave a pep talk on balancing work and maintaining good health. He proposed in the email that he would start an aerobic session every Wednesday afternoon and explained the details of the arrangement. His 'lecture' in the email message described above mentioned about how functioning as a team and taking charge of one's health is important. The message that the dean was trying to send was that he cared about the wellbeing of all members despite the many deadlines he had set for the past weeks. This can be seen in Sample 15.

15. Why am I doing all this? Mainly to improve our esprit de corp, but more importantly my concern for our health.

In the following samples, the dean used imperative 'Let' to give suggestions involving the speaker –sample 16 and also as indirect command – sample 17 (Leech and Svartvik, 1975: 216). The messages are provided below:

16. Let's admit that we are all out of shape
17. Let's do it!!!

Even though sample 17 sounds like a suggestion, in the context of this email, it is actually an indirect command since the dean would like the staff to participate in the aerobic session that he had organized every Wednesday.

Satisfying Social Needs

The third purpose of communication is to satisfy social needs. This involves members in an organization exchanging information or interacting to improve bonding among them or to improve social interaction. In the email samples analysed, a few emails were sent to meet this purpose. One example is an email in the P-chain - informing the staff about an illness of another staff member.

18. *Salam and Selamat Sejahtera semua*, (greetings to all)

Untuk makluman semua, sahabat kita XXX dari jabatan Z baru-baru ini telah di tahan di hospital *untuk beberapa hari ...*(for your information, our friend XXX from Z department has been awarded for a few days…)

The email was written in BM and details about the location of the house were given. The writer also urged the faculty members to visit and pray for the well being of XXX. The announcement was responded to by the dean who informed that he had visited XXX with a colleague and also offered prayers that XXX would recover very soon [19]. This message was also written in BM.

19. *Awb, Memang patut ziarahnya. Saya dan Y telahpun menziarahinya 3 hari yang lalu* (it is a good thing to visit him. Y and I had visited him 3 days ago)

The email contained a greeting written in its short form *Awb*. It is typical of the greetings used by the dean in the emails. In response to the two emails described above, XXX who was sick, wrote to inform everyone about his condition. He also thanked everyone for the prayers.

20. *Assalamualikum w.b.t*. (Greeting)
Alhamdulillah I am recovering from a small operation. Thank you for the *doa* (prayer). Don't worry, I'm resting at home.

In sample 20, XXX used Arabic greeting and also expressed his gratitude to God for his recovery. This message was responded to by a fellow colleague who advised that XXX had a good rest and wished him a speedy recovery.

21. Dear XXX, Take plenty of rest. May you have a speedy recovery and may Allah will always be with you.

Another example of email used to satisfy social needs is to announce the death of the mother of one of the faculty members.

22. *Rakan-rakan*,(Friends*)*
Ibu kepada Pn X telah kembali ke rahmatullah pada 27 Disember 200x yang lalu…(the mother of Ms X has passed away on 27 December 200x…)

The message was written in BM and a few people responded by expressing sympathy and prayers for the dead. The writer of this email who announced the news was the acting head of the department. This is her first email written in BM. All the other emails written by her were in English. One of the possible reasons was that she would like the message to be shared by all in the faculty – the academics, the administrators and the supporting staff. This message is more of an announcement and for most announcements in this mailing list, the language used was BM. BM is the official language of the country and thus, it is the official language used in all formal correspondence. However, for internal communication among the academics, most people would use English. When an announcement is directed to the academics, the language used would be English as shown in sample [12]. If the announcement is sent by an administrator or the supporting staff, the message will be in BM. This is depicted in sample [23].

23. *Sukacita dimaklumkan bahawa mulai 15 Disember 200x semua* split *aircond yang dipasang disemua bilik pensyarah sudah boleh digunakan...*(It is a pleasure to announce that from 15 December 200x all split air conditioners in the lecturers' rooms are ready for use).

The email messages written to satisfy social needs described above highlighted the values adopted by members of the faculty that are caring. An announcement about a staff illness prompted responses in terms of messages to wish for a speedy recovery to messages encouraging other members to pay a visit. This value is not written down but people know about its existence. Values serve as guides and standards that shape managerial practices. They act as an informal control system that informs employees of what is expected of them to effectively function in the organization. Abdullah (1992, 1996) stated some common values inherent in business corporations such as profits, quality and excellence. Those values are embedded in corporate brochures and documents, training programmes and other public relations activities. The values are also expressed through various symbols and usages of the organization. This includes writing and speaking styles that members adopt in their daily work. Besides, the grammatical structures used in communication at the workplace, ways of addressing other members and beliefs about the use and the distribution of power and privileges are examples of symbols.

FUTURE TRENDS

One interesting pattern that is noticeable in the email communication of the academics is the use of different abbreviations for the same word. For example, there are four different abbreviations used for the Arabic greeting *Assalamualaikum* (Peace be upon you): *Salam, Aslmkm, AWB, and AWB/SS*. In addition, the abbreviation for the expression 'as soon as possible' also has a few different variations used by the writers of email such as 'ASAP', 'a.s.a.p', and 'asap'. The different abbreviations used for the same word might hinder communication but there was no evidence in the email chain which indicated that there was a misunderstanding of the message as a result of the use of it. In addition, there was no message asking for clarification for the use of different abbreviations for the same word in the subsequent emails in the same email chain. This is probably because people in this mailing list share the same values and they manage to understand each other. Thus, it can be said that the present trend of using abbreviations and paralinguistic features in email messages has shaped the linguistic features of electronic discourse as a communication medium in organisations. The existence of organisational and local culture will influence the norms and features of electronic mail discourse in the future. Understanding such influence is important in maintaining harmony and effective interpersonal communication towards effective organizational performance.

CONCLUSION

People in organizations are aware of the strategies available for disseminating information via email. The strategies are used differently depending on the situation, the people involved in the interaction and the subject matter. The bilingual nature of almost all academics in the organization discussed prompted the use of code switching in some of the messages. The code switching took place when some words or ideas are better communicated in a certain language and when an email writer wanted to switch from being formal (e.g. discussing work) to being informal (e.g. giving side remarks). Besides, code switching was also used as a strategy that empowers people in authority to select which language to use in what situation.

Socio-cultural factors such as religious practices and beliefs of people in organizations influence the way they communicate via email. The use of Arabic salutation and closing indicate the preferred way of doing things and by responding using the same Arabic salutation shows respect to fellow email interactants.

Writers of email in organizations are aware of who they are interacting with. An email communication between two colleagues who are also good friends would show instances of informal, conversational language even though the subject discussed is serious business. The seriousness of the subject matter is toned down by the use of paralinguistic cues such as exclamation marks (!), emoticon (☺), trailing dots (….) and the use of all small letters. In addition, the formal language used in email by people with authority is also lessened by the use of paralinguistic cues and conscious 'informal' word choice (e.g. head honcho). Thus, knowing the audience of an email message is the starting point for an effective email communication in organizations.

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KEY TERMS AND DEFINITIONS

Directive Emails: Emails written to give command or order to do something.

Dynamic and Interactive Process: A process that is continuous and evolving.

Electronic Business Discourse: The discourse of work-related activities via electronic means.

Interactive Emails: Emails that are sent in response to the earlier mail discussing the same subject.

Mailing List: A list where people subscribe to via email. Subscribers to the list will receive correspondence sent to the list.

One-Way Email: An email which is not responded to and is usually sent to make announcement.

Representative Speech Act: A speech act which states that something is true.

Chapter 31
Visualization of Communication in Some Mobile Phone Directory and Call Log Icons

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ABSTRACT

In contemporary world, visual communication is fast growing in importance. In the internet, computer, digital media, Artificial Intelligent Programming Languages, etc, communication is dominated by visual resources. Most people, particularly in the third-world countries, face some difficulties in understanding this phenomenon of language. This study applies Eco-semiotic theory on the analysis of some mobile phone directory and call log icons. The study indicates that some of these visual codes do not constitute a new/esoteric language but that they are familiar resources appropriated and spray-painted to have novel semantic values. It therefore proposes that the reading and interpretation of mobile phone visual discourse can best be done through dependence on the general community and individuals' knowledge of natural phenomena and material world from which these codes are generated. The study also indicates that the communication system is limited in its operation only at the primary level of signification and therefore proposes the exploration of both the primary and secondary level of signification so that audience, particularly those who can only read non linguistic signs would be adequately served by the emerging system of communication. On the whole, the study stresses the need for mobile phone technologists to orient their iconic designs towards meeting the needs of the illiterate audience by drawing iconic signs from their eco-semiotic environment.

INTRODUCTION

The development of the *World Wide Web* has brought a tremendous and radical revolution in the world's lingual environment. Human communication today is increasingly growing la/iconic as evident in the computer, digital etc, media. Worded language is gradually losing to digitally -processed visual signs. With the fast penetration of computer media of communication into rural areas, where the largest

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number of people who cannot read icons can be found, there is the need to engender researches in technical media literacy with a view to enhancing the semiosis (production and interpretation) of the emerging phenomenon of language. This study therefore arises from the need to fulfill this obligation.

The most popular of the modern technical media of communication in the third world countries, is the mobile phone. In Nigeria, for instance, the mobile phone has become an invaluable possession not only for communication but also for recording events, browsing the net and even, for scam. Accordingly, computer technologists all over the world now target the handset market, innovating regularly in their creation of new icons so as to be able to cope with the new values as well as the laconic nature of the medium. This chapter focuses on the handset medium as a paradigm of the contemporary computer-mediated communication generally and its directory and call log icons as specimens of the emerging pattern in human social interaction. The specific objectives are to (1) identify the icons used in the two signifying realms of the mobile phone, (2) relate these icons to the Nigerian eco-.social environment, (3) classify the icons as typical or atypical, and (4) identify the limitations of the signifying practices and suggest ways of orienting iconic communication in the mobile phones used in Nigeria to the country's eco-social environment.

BACKGROUND

The first idea of telephone was by the French inventor Charles Bourseul, who "suggested in 1854 that vibrations caused by speaking into a flexible disc or diaphragm might be used to connect and disconnect an electric circuit, thereby producing similar vibrations in a diaphragm at another location, where the original sound would be reproduced". However, it was the American inventor, Alexander Graham Bell who produced, in 1875, the first telephone capable of transmitting and receiving human speech with its quality and timbre (Encarta, 2006). Since Bell's invention, there have been several advances on the communication instrument. These advances vary in terms of sophistication, size, basic components, functionality (coverage), and utilitarian value.

The most ubiquitous of these advances is the cellular mobile telephone system, first tested in Japan in 1978. Since then, the invention has grown in importance in every part of the world. In Nigeria, for instance, people do many complex things with the instrument such as for communication, for recording events, for browsing the net and even, for scam. Discourse scholars in the country have researched into the language behavior of people in this important domain. For instance, Chiluwa (2007) carried out a study on the language style of SMS (short message service) text- messaging in the Nigerian Christian context. With the application of social discourse analytical theory on fifty-three text messages produced by some Christians in Lagos and Ota areas of Southwestern Nigeria, the study indicated that the language served in representing Christian values and sentiments for they are characterized by "faith-based pronouncement, prayer and well wishing, admonition and assurance, appreciation, praise and worship and season greeting"(p.5).

Similarly, Taiwo (2007) examines the implications of computer-mediated communication for the teaching and learning of English in Nigeria. The study explores the linguistic usage in one hundred each of SMS and e-mail texts, gathered from the e-mail circles, which the author belongs and finds generally that the producers of the texts typically write in the Nigerian English variety. He finds further that the language style is generally lose and is, constrained by the need to manage time and money spend on Internet services, characterized by short forms. On the implication of the Internet communication on teaching and learning of English in the country, the study indicates that "cyberspace and mobile communication now shape language use in formal classroom writing by Nigerian students" (p245).

THE NEED FOR THE PRESENT STUDY

There are several raison d'être for the present study: One is that studies in computer-mediated communication both in, and outside Nigeria concentrate much more on e-mail, text messaging, online charts, listervers, bulletin boards, web pages, etc (see Herring, 2004 and Taiwo, 2007). Not much attention has been given to the signifying practices in mobile telephone (handset), which, as indicated earlier, is the most ubiquitous technical communication medium in the third-world countries. Also, many of the existing studies on computer- mediated communication are text-based and thus take for granted the visual resources which are equipollent to the verbal features of the computer communication media. Finally, studies in computer- mediated discourse dwell on one side of the semiosis (the language style of users) while the other side (the communication behavior of the technologists, who are interlocutors in the discourse community) has been largely neglected. This study arises from the need to bridge these gaps through paying attention to/ on 'technological' features of communication in some brands of mobile phone in the Nigerian Market.

THEORETICAL BACKGROUND

There are several approaches of textual analysis e.g. Content Analysis and Ideological Analysis (associated with Foucault), Discourse Analysis, Rhetorical Analysis and Intertextuality (associated with Bakhtin, Kriteva, Roland Bathes, Lemke and Thibault), Genre Theory (associated with Prop, Bakhtin,Hasan and Martin, Narratology (Propp, Mathesius,Bakhtin,Greimasand Labov) and Semiotics(associated with Bathes, Umberto Eco, chandler, Lemke etc).The semiotic approach is favored for the present study. This approach is reviewed briefly below.

Brandt Per Aage (2004: online) defined semiotics as "the study of signs, their forms, expression and contents". There are several genres or sub- fields of semiotics such as Visual Semiotics, Biosemiotics, Sociosemiotics, Geosemiotics, Multi-media Semiotics, Textual Semiotics, Mathematical Semiotics, Cultural Semiotics, Computer Semiotics, Organizational Semiotics, Hypertext semiotics and Pictorial Semiotics, each with different methodological approach to texts. They are, however, not disparate disciplines or fields for signs are their common objects of study. At this juncture, I need to justify my choice of the chosen approach by providing an answer to the question-Why Ecosemiotics?

I start answering this question by acknowledging the fact that other genres of semiotics, especially those that are computer-based e.g. multimedia and hypertext semiotics, are equally adequate in analyzing the semantic practices in mobile phone under study. However, I chose to invoke Ecosemiotic theory because I am convinced that it caters for the diversity of eco-social signifying phenomena in the 'text'. In the words of Kalevi Kull (1998), Ecosemiotics is a "part of the semiotics of culture, which investigates human relationships to nature which have a semiosic (sign-mediated) basis". Kull (1998) further, and in a simpler term, describes it as "environmental semiosis". I like to describe Ecosemiotics in this paper as a semiotics of ecology, which, as it were, concerns with the study of signs in the ecosystem, comprising humans, plants, animals and man-made machines or artifacts. In relation to this view of mine, I conceive of the mobile phone as an eco-social artifact and all its signifying practices as eco-social resources digitally presented for communication. I believe that all signs, natural or man-made, are products of the environment. Similarly, I believe that the same environment must be invoked when interpreting all signs, hence the relevance of ecosemiotic theory to the present study.

METHODOLOGY

This study is dominantly theoretical and descriptive. The short analysis provided is for the purpose of enhancing the description. Representative data were obtained from some mobile phones in the Nigerian market. In particular, the Samsung brands of handset are purposefully used for the study. The objects of analysis in this paper are directory and call log signs in the chosen mobile phones. The directory icons are sign practices contained in the menu list of these phones and they are so-called because they direct users to what can be done with the phones. The call log icons provide call information. These icons were digitally photographed and enlarged. They are then produced as plates, which are analyzed. The author had some difficulties in offloading the icons from the mobile phones; hence few of them are discussed in this work. The linguistic signs used in complementing these icons are not included in the analysis for one of the purposes of this paper is to test the perceptibility of these signs from the perspective of persons who cannot read the coded signs Iconic signs in the mobile phones purposefully selected were discussed as typical and atypical icons.

DATA ANALYSIS

Directory Icons

'Typical' Icons

I am using the word, typical, in a special sense in this paper to mean common environmental codes that do not require much cognitive energy for their interpretation; their meanings are easily inferred from their abstract appearance. These, as my analysis will soon reveal, include message Icons, phone book Icons and sound Icons. In many of the brands of mobile phone used in Nigeria, the message icon comprises an envelope displaying some other envelopes as shown in Figure 1.

The sense of this icon is easily discernible to an average user of phone cell because it is a familiar image. The abstract picture of envelop concretely denotes message. So, no serious mental effort is involved in reading this meaning into it. However, the icon does not explicitly indicate the kind of message as either sent or received. Information needed to decide this is found at the secondary layer of the communication, where there are explicit verbal complements to the iconic sign. A similar iconic practice is the sound icon below used in many of mobile phone cells.

The bell is a familiar object in schools and churches. It is also used by sellers of cheap products in Nigeria to call the attention of buyers to their products. And when a bell is rung, a sound is produced. Therefore, the icon poses no decoding difficulty.

'Atypical' Icons

Atypical icons are familiar but not immediately perceptible icons. Some rigorous common sense calculation is required for their understanding. These include Network Icon, Settings Icon(s) and Organizers Icon. The setting icons are of two types: phone setting and display setting. In some brands of mobile phones, e.g. Samsung, the phone setting consist two moving screws that intertwine as shown Figure 2.

In some other phones, e.g. Nokia brands, it is made up of a spanner as shown next.

Figure 1. Icon for messages

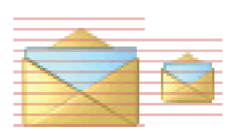


Figure 2. Icon for sound

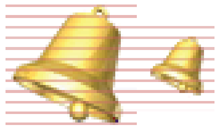
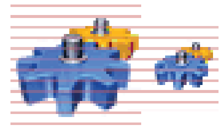


Figure 3. Icon for setting (Samsung)



The configurations above are familiar but yet atypical for they are capable of generating multiplicity of interpretation. The most perceptible sense of the spanner icon above is repair because it is typically used by people who repair mechanical things. By extension however, it suggests the idea of setting. This latter sense is clarified by doubling the icon, which quickly calls to mind the usual sight at mechanic workshops, for instance, when the engineer hold one end of a screw with one spanner and fasten the other end with another when setting things. The display setting, especially in Samsung mobile phone consists of a rotating gear fastened to the base of a computer monitor. The combination of the two is analogous to the phrase 'display setting' for the function of the monitor is to display. Another example of atypical icons includes the following icon for musical note.

There is nothing obvious that suggests music in the image above; it is rather a conventional sign whose sense can be identified by people who understand that convention.

Call Log Icons

The call log icons provide information on received, missed and dialed calls. The icon used in signifying missed calls, particularly in Samsung mobile phone, consists of an image of a telephone receiver and a vertical stroke across it. The vertical stroke is a concrete representation of the abstract human voice, which runs off its landing point, i.e. the phone.

At secondary level of signification, the icon resembles a free bird, which flies away at will. In the context of telephoning, this practice denotes nothing but missed calls. Dialed calls are signified by an image of a telephone receiver plus an arrow-headed horizontal stroke broken out of it. The arrowhead stroke signifies human voice and the direction of the flow- out of the phone. Similarly, received calls are signified by the icon of the old telephone receiver plus an arrow headed stroke with a coiled base, which breaks into the telephone receiver. In many other phones, the common icon used to denote this is shown in Figure 4.

All of these can be regarded as atypical icons for there is no explicit ontological connection between them and their senses.

Limitations of the Signifying Practices

Generally speaking, the iconic communication practice in mobile phones caters well for audiences who can read both linguistic and non-linguistic signs; the illiterate or semi-literate audiences are not adequately catered for because many of them cannot read icons; some can only read the verbal signs that complement the iconic message. One

Figure 4. Icon for setting (Nokia)

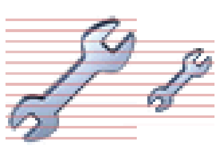


Figure 5. Icon for sound

Figure 6. Icon for missed calls

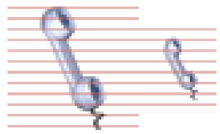
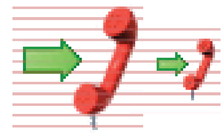


Figure 7. Icon for dialed calls



of the results of this is that many of the users of this digital equipment underutilize it or require the assistance of the people that are more knowledgeable in the field.

Also, the producers of these mobile phones only make use of the primary level of signification in their iconic communication. In most cases, the producers take a lot of things for granted by using the verbal complements at the secondary level. This often leads to miscommunication or communication discontinuity. Most users get stuck at this level.

The two shortcomings highlighted above pose to the producers of this product the task of its domestication. By this I mean that local resources should be utilized at the secondary level of signification so as to reduce the interpretive problems users face at this level. I believe that every society has its indigenous technology; this can be drawn upon in the entire productive enterprise. The Yoruba people of western Nigeria, for instance, had an indigenous mode of communication called *Aroko* before the advent of modern technology. This technology was also based on icons and it was as effective as the modern technology in communicating with people from far and near. One example of this style of communication that is based on icons is: the feather of a fowl tied to a maize cob. When this is sent to anybody who can read it, that an individual quickly realizes the need to attend to the message urgently and personally. An individual who understand this icon will quickly connect the urgency of the message with the feather of the fowl and the personal attention it deserves with the maize cob. In Yoruba semiotic world, the maize cob is one of the materials for cleaning the anus after defecating especially in rural communities. A Yoruba saying, which clarifies the meaning of this sign in the context of communication is that "*Nobody sends his/her child on errand of defecation"*, that is, it is not possible for a parents to ask their children to defecate for them. By logical connection, the sign practice indicates to the addressee that the matter deserves her personal attention.

What I aim to achieve in this brief allusion is to drive home my view that the iconic communication in mobile phone will be more effective if mobile phone technologists draw more on the familiar resources in the cultural technology of the immediate environment. There is abundant evidence in Nigeria today that those handsets whose manuals and directories are presented in indigenous languages enjoy the patronage of the teaming illiterate audience than those produced in English language. What this suggests is that the efficacy of the iconic style of communication in a digital medium becomes more highly valued when indigenous resources are appropriated than when the meaning making system consists of unusual components.

Certainly, what I am proposing in this study is not easy to accomplish in multicultural nations like Nigeria. It is practically not possible for mobile phone technologists to produce phones whose icons will serve these different eco-social environments. However, mobile phone technologists can start this new innovation with the major cultural groups in developing nations. Local technicians may be given the license to model the original handset products and modify their technological content to meet the needs of the audiences in their immediate environment.

CONCLUSION

This paper has demonstrated that the contemporary phenomenon of communication, involving digital technology, also manifests in mobile phones. Through the application of the method of Eco-semiotics in interpreting some directory and call log icons in some brands of mobile phones in Nigeria, the paper has shown that a sound understanding of, or familiarity with the ecosystem, comprising man made and natural resources, is required for interpreting iconic signs in the digitally oriented mobile phone medium of communication. Considering the high level of computer illiteracy among mobile phone users in some third world countries, the paper stresses the need for the computer mediated communication technologists to utilize more typical resources in the users' ecosystem than atypical ones which complicate their heuristic tasks.

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KEY TERMS AND DEFINITIONS

Cultural Technology: This refers to indigenous technology, particularly of communication.

Eco-Social Resources: This refers to the totality of environmental products of meaning production, including artificial and manmade resources.

Icons: This is being used to refer to the non-verbal meaning making signs in mobile phone.

Semiosis: This refers to the system of meaning production, reception and interpretation.

Visuality: This refers to visual, non linguistic resources of meaning making in discourses.

Chapter 32
Like a Poke on Facebook Emergent Semantics in Location-Aware Social Network Services

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ABSTRACT

Location-aware social network services are set to be the next generation of social networking services. These services typically allow users to send and receive messages and icons. Iconic signs, which look like what they represent, may be said to have a commonly understood meaning attached to them. However, this is fluid, leaving them open to variation in meaning. More precise meanings are free to emerge within specific contexts and within particular social networks. Within this chapter the authors explore the semantics that emerge for three icons used within a location-aware social network service. Using Systemic Functional Linguistics (SFL), focus is given to the dominant speech function attached to each icon and the resultant meanings that emerge within social networks of the systems users. This study allows the authors to better understand how users interact with each other in smart spaces and utilise location information in social network services. By understanding how icons are used to engage others and how the meanings attached to these icons develop, the authors are better placed to create systems that fit naturally and beneficially into the users' context.

INTRODUCTION

Social network services have received a tremendous amount of attention in recent years. Internet-based services such as Facebook, MySpace and LinkedIn have recently emerged and quickly become an integrated part of many people's lives. Most of these services connect people to other people through the use of more or less stable profiles, which each user has to fill in and maintain. In addition, recently people's position has been an important parameter.

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Either explicitly stated by the user in services such as Twitter or Facebook, or directly sensed though location-based services such as Google's Latitude. These location-aware social network services are predicted to be the next generation of social network services.

Social network systems that link people to people and people to geographical places are referred to as P3 systems (Jones & Grandhi, 2005). P3 systems are divided into two different types: people-centered and place-centered. People-centered systems typically use absolute user location or proximity. Place-centered systems typically employ either physical or virtual places as their representation. A simple example of a people-centered system is one where a user has a contact list, and the contacts show up in different colors, such as green, yellow and red, depending on proximity.

One of the features on many digital communication channels is the use of iconic signs. The most notable of these are 'emoticons' which are typically 'smilies' or graphic representations of facial expression. Icons in digital communication are used to reflect the sender's mood or tone of communication. Yet, icons are also used as a means of conveying information about one's availability. The most obvious example of the former is the ironic-smiley (;-)), and for the latter is the availability traffic light known from instant messaging. As an example, Skog (2009) reports on a survey among 560 Norwegian users of Facebook aged between 15 and 30 years. She demonstrates that 90% use emoticons when communicating.

The work presented here investigates the use of iconic signs to mediate social interaction and interpersonal relationships. This case study revolves around the FindMyFriends project, which is a place-centred location-aware social-network service. The use of iconic signs in FindMyFriends is investigated by using the SFL notions of speech function and context to examine the language structures and emergent semantics of interaction in smart spaces. Systemic Functional Linguistics (SFL) has a stratal representation of language comprising context, semantics, lexicogrammar and expression, where each of these both constructs and construes each other (Halliday & Matthiessen, 2004). Meaning then is represented both as a strata of language and as emergent from patterns of realisation across all strata making it a complex systems solution to meaning making.

Importantly for the current purposes, Systemic Functional Linguistics (SFL) is also a social semiotic theory that sets out from the assumption that humans are social beings that are inclined to interact (Halliday, 1978). We can think of semiotics as a perspective, looking at anything from the point of view of how it generates meaning (Halliday, 1978; Eco, 1984). This results in viewing all behaviour, and indeed all artefacts and even the environment itself, as potentially meaning bearing (Fawcett, 1992). However, as Hasan suggests, "despite overlaps, what can be said through the verbal code is not coextensive with what can be said through the gazing code or the gesture code or the code of dress" (Hasan, 1980). Each code carries distinct representational capacities. While language has the capacity to transcend the present, gesture or gaze need some sort of temporal proximity even if this is mediated by technology. It can be argued that these codes, and in particular gaze, are heavily oriented towards interpersonal meanings (Hasan, 1980). To see the significance of gesture to interpersonal meaning making, it is only necessary to consider the attempts at iconic representation of gesture in the form of emoticons.

Variation in semantic potential is not new; after all, Bernstein's (1971) studies showed that individuals do not share the same meaning potential. Not having equal access to the full range of meanings in a code is distinct however from the code itself having a limited potential. Individuals may not have the same access to the code, but the code has the same potential whether we access it or not. In the situation of multimodality, the codes themselves do not have the same potential. This

Table 1. Speech functions and responses from Halliday and Matthiessen (2004, pp. 108)

Role in Exchange	Commodity Exchanged	Initiation	Response	
			Expected	Discretionary
Give	Goods and Services	Offer	Acceptance	Rejection
Demand		Command	Undertaking	Refusal
Give	Information	Statement	Acknowledgement	Contradiction
Demand		Question	Answer	Disclaimer

comes out clearly in Hasan's (2001) discussion of decontextualised language.

Context: an SFL Model of Context

The social system of which we are all a part has a particularly useful quality for research: "it is, typically, presented in highly context specific doses" (Halliday, 1974; Halliday, 1978). This means that we do not have to deal with the entire social system in order to understand the impact of the social system on meaning. What we have to manage is a description of language in context.

In general, the SFL notion of context views context as all the features of a social process relevant to meaning making. These features are traditionally organized into three core dimensions of context: Field, Tenor and Mode, where *field* is ``the nature of the social activity…", *tenor* is ``the nature of social relations…", and *mode* is ``the nature of contact…" (Hasan, 1999). While making use of both field and mode, in this study we have focused on tenor and its associated semantic notion of speech function.

Speech Function in SFL

Meaning is our central concern in this study and we are interested in the tasks to which users put the a (in this case three icons) to which they have access. Here we are interested in what Halliday and Matthiessen (2004) refer to as language as exchange or the interpersonal metafunction. The interpersonal metafunction is "language as a mode of action" (Halliday and Matthiessen, 1999). We can think of this as meaning as exchange where the "principal grammatical system is that of MOOD" (Halliday and Matthiessen, 2004). Social network applications are primarily about exchange and the linguistic system that is most relevant to their success is the semantic system of speech function. Hasan (1996) has elaborated the networks of speech function further however here we focus on Halliday and Matthiessens' (2004) representation of the basic categories (see Table 1).

Because digital communication is moving towards multiple device and application integration and towards a more multimodal approach, new ways of investigating this interaction need to be explored along with the interaction itself. These two aspects: the digital communication and our means of investigating it are intimately connected. As digital communication becomes more integrated and multimodal it becomes less accessible but tells us more by providing a better understanding of how people use such technology to interact and some insight into the challenges of analysis of icon based interaction via location-aware social network services.

BACKGROUND AND EXPERIMENT

FindMyFriends represents a convergence of online social network services and location-awareness. In the context of P3 systems it can be regarded as a place-centered system. This service, which was developed by Accenture, IBM and Sonitor, was

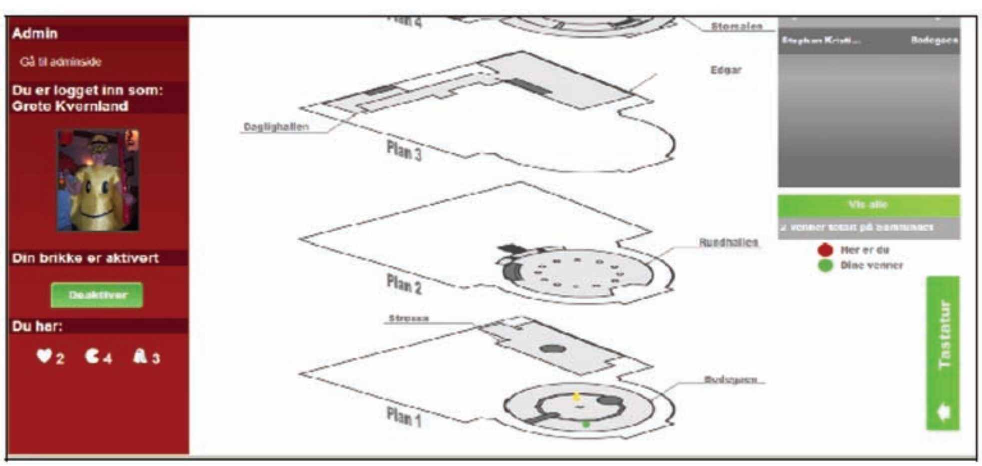
Figure 1. Overview of friends list on website showing icons that could be used as avatars (picture from Accenture)

installed and used at the primary festival location during the biennial student festival - UKA 2007 in Trondheim, Norway.

UKA is Norway's largest student festival. Originating in 1917, the 2007 UKA was a three-week festival from October 4th to 28th and was located in Samfundet, a student building, constructed in 1929 and containing ten main rooms, including several pubs and a concert hall. Locating friends and colleagues within Samfundet can be very difficult and the idea of FindMyFriends was to equip participants with ultrasound beacons allowing them to be located within Samfundet.

The 2769 participants who decided to use the system, could register a profile on the FindMyFriends website after which they could start to connect to each other (see Figure 1). Participants received an ultrasound beacon, which had to be

Figure 2. The map from the terminal showing position of the user and friends (picture from Accenture)



activated before use and was linked to their profile allowing them to locate and be located by those on their friend list through any device used for accessing the web. In addition to the website, several terminals were distributed throughout the building. By presenting the beacon to the terminal it was possible for the user to log in and read or send messages and icons (heart, Pacman and ghost) as well as locate their friends on a map (Figure 2) and view statistics for each room (Figure 3). Users were free to send any icon to any friend. Despite their association with the game Pacman, the three specific icons had no prior meaning explicitly attached to them.

Activity was logged and recorded for analysis and at the end of UKA participants were invited via email to take part in a survey regarding the use of FindMyFriends. Of the 2769 participants, 207 took part in the survey.

Of the 2769 users registered only 1661 actually activated their beacons. Of the users with activated beacons 36.9% were female, 61.3% were male and 1.75% did not register their gender. Students can attend the festival as either visitors or volunteers. Volunteers were also permitted to act as visitors when off-duty. Volunteers accounted for 33.6% of the users and visitors for 66.4%. All 2769 users received the invitation to fill in the survey. Of these 207 answered. Of these who answered the questionnaire, 37.2% were female and 62.8% male. These numbers do match the distribution of all the users, with only a 0.4 points difference. Further, 32.4% were volunteers and 67.7% visitors. Again, this matches the overall distribution with only a 1.2 points difference (see Figure 4).

These figures are a good indication that the participants who answered the questionnaire are a representative selection of the actual user mass. The confidence interval with a 95% confidence level is 6.55. Thus, we can be 95% certain that the results are within +/-6.55 percent accuracy. Like other data from this study, the results of the survey were coded for gender, age and other key variables. Because of the relatively small sample size, however, for the purposes of examining meaning, we have averaged across these variables. Further study of this data set will likely make fuller use of these variables.

Figure 3. The statistics screen used for showing single/non-single users, preferred music and staff to student ratio per room (picture from Accenture)

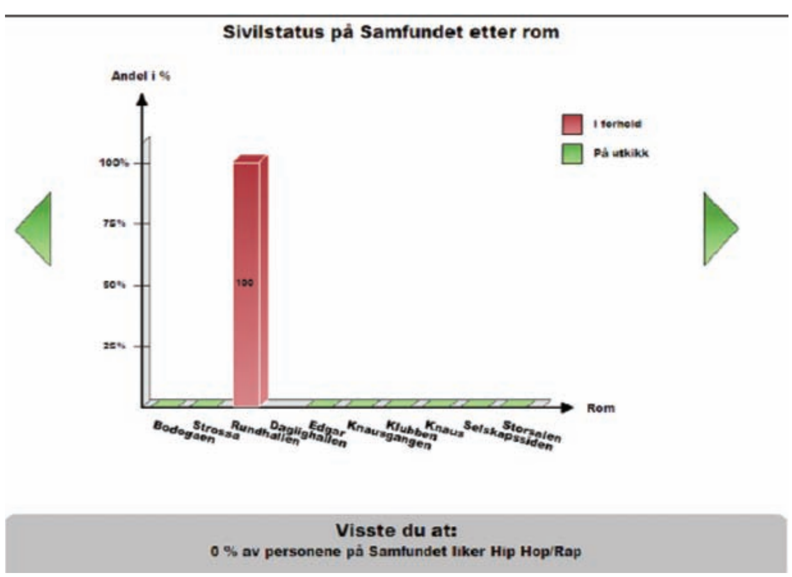
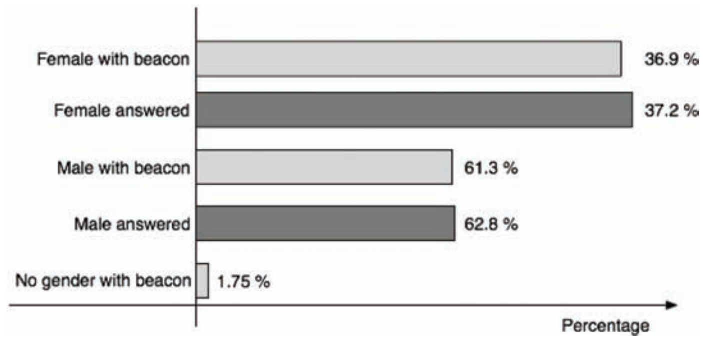


Figure 4. Gender of FindMyFriends' users and respondents



METHODOLOGY

Analysis

The decision to analyse the data linguistically was not made until after the data had been collected and measures of central tendency carried out on the results of the study and subsequent survey. As such, the study was not designed to capture information specifically for a linguistic analysis. Because of its inclusion of all forms of behaviour as potentially meaning bearing and because it allocates and relates patterning to different levels of language, a Systemic Functional Linguistic framework (henceforth SFL) was used to examine how icons were used within FindMyFriends to engage others. Focus was given to a contextual analysis using the SFL parameters of field, tenor and mode, with particular attention given to the parameter of tenor due to the prior significance of this in electronic communication (Taiwo, 2007). The metafunctionally associated[1] semantic notion of speech function was also considered.

This analysis did not extend to the level of lexicogrammar for two reasons. Firstly, the data was not conducive to a grammatical analysis since although many users responded to the survey question "What do you think the meaning of the heart/Pacman/ghost is?" with what amounts to a language translation of the icon meaning, many did not and the variability of their responses can be seen below. Secondly, while icons most definitely have meaning (and hence a semantic stratum), this meaning is not necessarily lexicogrammatically arranged.

Method

As with many studies, this study involved combining information from a number of different sources. As such the first step was to use the notion of context to sort out the value of the different bits of information. This was done by considering the contextual configuration (field, tenor and mode settings) of the different contexts from which the data came. This was then used to consider how the data might be applied to understanding the emergent semantics of the icons. The understanding of the different contexts for the information sources was then used to build a picture of the context of use for the icons although this was, by necessity, general not instance based.

Because the data extracted from this study was iconic in nature, the results of the survey were used to gain partial access to the purpose or intent of users. Participants were asked to consider how they used each icon during the study and to report on this usage pattern. Thus, the result was a subjective statement of the intended meaning behind icon use. So, while the behaviour that we are interested in is multi-modal in nature, our access to this behaviour, in this study, is subjective and reflective.

It is difficult to examine speech function when what is under examination is subjective and reflective since, as Martin (1992) points out, speech function is about dialogue, and we typically establish speech function by considering the response that a move in the discourse receives. This is the case because the semantics, or the meaning behind a move, becomes more obvious when we can see how people respond to that move. In this study we do not have the following move to the stated intended meaning behind an icon's use. We are reliant then on how participants report their use of an icon and the speech function that they attribute to it. On the other hand, the questionnaire was filled in after the system was used and on the basis of several interactions, so is therefore likely to reflect a stabilized individual view on meaning. Like other aspects of meaning, speech function is sensitive to contextual variation and in particular to variations in tenor or the interpersonal relations of participants.

By combining participants statement of meaning for the icon with their reported behaviour and general statistics of actual behaviour (not participant identifiable) we were able to establish an estimation of the multimodal dialogue that took place with icon use in FindMyFriends. This gave a better indication of the emergent semantics for the icons.

RESULTS

The results of the analysis outlined above are reported in four stages. Firstly, there is a discussion of context including a review of the different contexts of the data and a statement of the potential configuration of the context of icon use (Table 2). Secondly, consideration is given to the different ways that users reference existing technology and the ways they appear to use this to arrive at meanings. Thirdly, the variability in the response to the one question from the questionnaire is presented with examples from the data to give some indication of the variation in the data (Table 3). Finally, the speech function attached to each icon is reported (Figure 6).

Context

The context of the current research may be considered at a number of layers. Firstly, there is the context in which the participants were sending the icons to each other. Secondly, there is the context in which the participants were recording their recollections of their icon use during the experiment, and thirdly the context of our reading their responses to the survey and these are not the only contexts that we might consider.

Taking the second of these contexts, the context of filling out the survey, we can see that this alone is quite a complex context. Although we can recognise survey taking as a context that we are familiar with in our society, the situation for each participant is quite different. They have for example different relations with the researchers, different motivations and different physical conditions under which they completed the survey. On top of these differences, when completing the survey, participants are drawing on an average of

Table 2. Contextual descriptions

Context of icon exchange	*Field*	Material action obligatory, action with symbols necessary, relating
	Tenor	Social hierarchy non-hierarchic, chosen peer-group; social distance minimal
	Mode	Role of language ancillary, channel graphic pictographic, real time electronic
Context of the survey	*Field*	Material action absent irrelevant, action with symbols necessary, reporting
	Tenor	Social hierarchy hierarchic, legally defined, repercussive; social distance maximal
	Mode	Role of language obligatory; channel graphic written, mediated edited

Table 3. Variety of response type with examples from data

Stimulus question: "What do you think the meaning of the heart/Pacman/ghost is?"			
Responses			
Classification	Category	Subcategory	Example from Data
Similarity or metaphor	It's like…	Action	e.g. "it's like sneaking up on someone"
		Function	e.g. "it's like a poke on Facebook"
Potential	Could be…	Modality	e.g. "could be to flirt with someone"
		Desire	e.g. "you want to make contact"
Direct speech	"…"	Minor	e.g. "Boo!"
		Major: declarative	e.g. "You don't know who I am but I know who you are!"
		Major: interrogative	e.g. "Where are you?"
Justification	I used it…	Reason	e.g. "just for fun/to scare"
		Statement (always negative)	e.g. "I didn't use the functionality"
		Categorize	e.g. "a funny joke"
		Uncertainty	e.g. "I don't know"
Impact	I am… you are…	Self	e.g. "I am mysterious"
		Other	e.g. "You are ugly"
		Ambiguous	e.g. "psychotic bed sheet fetish"
Target group	Who…	Set membership	e.g. "An old boyfriend or girlfriend"
Reflection	I think…	Mental projection	e.g. "I thought that it meant…"
		Argument	e.g. "I feel that it has much the same meaning as the pacman because…"

all of their uses of the icons during the trial period rather than a reference to a single icon exchange. This means that their meaning for the icon is an average. This is the case with all survey-based research and we will return to this issue below, but let us consider for a moment the first context.

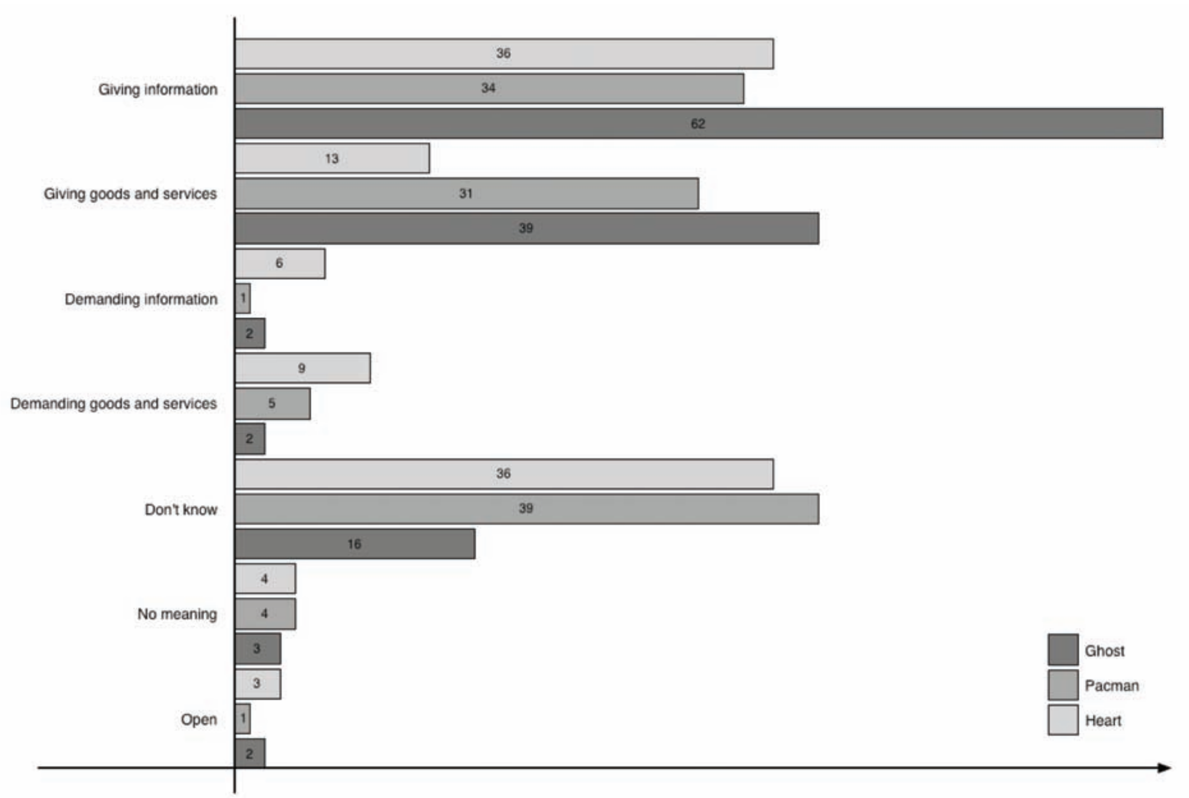
The field of discourse might be said to be casual conversation, the tenor peer to peer and the mode electronic. Drawing on Hasan's (1999) networks for context and Butt's (2004) extension of these, we can look a little closer at the context of the interaction. Rather than provide a full contextual analysis, the crucial parameters of difference are listed in Table 3.

Context of the Technology: Using Context to Predict User Behavior

It is the perpetual problem of human computer interaction (and indeed innovation more generally) that it is difficult to establish how users will engage with new technology, in particular those that do not have a historical reference point. Junglas (2007) argues that location-aware (or in his word location-based) systems are a disruptive technology, and in that sense present this exact problem. Users lack a reference point for judging the usefulness of such a system, thus traditional methods cannot predict market uptake. The main approach to assess market uptake is to expose potential users to the technology, typically in experimental environments.

The FindMyFriends project represents just such an exposure trial, and the responses to the

Figure 6. Speech function across heart, Pacman and ghost



survey indicate strongly that participants draw on their experience with other technology. The technology that participants appeared to see as most relevant in the current case was social networking applications such as Facebook. Many participants saw the icons as a form of poke but others appear to have treated them as being more like a status feed or micro blogging application. Of course there is a great deal of variation in the way that people use status feeds and a great deal of variation in the meaning of a poke as well as the desired response.

Although Junglas (2007) argues that location aware systems represent disruptive technology because they do not have a prior reference for them, this appears to be only partially true. Users faced with new technology, as we see here, reference the contextually closest known technology, which in this case is Facebook. We can predict the technology that is most likely to form the reference point by identifying the known technology that shares the most contextual settings with the new technology. The settings that are not shared represent the areas of the new technology that are least likely to be used to full potential and in this case it is the locational aspects. Yet even here we see that users reference an even older situation that underpins modern social networking technology such as Facebook – that of the social network itself. Users reported in the semi-structured interview that they were more than happy to have their close friends know where they were but that they wanted some control over privacy. This is much the same way that people tend to feel about small towns and by studying how people behave in situations where family and friends monitors them it is possible to predict how they will respond to location aware technology.

This use of reference points carries over into the meanings that get attached to the icons not just the users' behavior. All icons used in this study came from the game Pacman and we could reasonably expect that the meanings attached to these icons from the game would carry over to the context that we discuss here (McDougall et al., 2005). In fact we do see this to a certain extent, however the impact is not evenly distributed. While the game impacts heavily on the attributed meaning for the Pacman, the impact of the game on the meaning for the ghost and heart is much less apparent. For the heart and ghost, the broader cultural understanding of a heart impacts much more, while the ghost is very open in its meaning and again seems to take on some of the cultural meanings attached to a ghost rather than those from the game. As we can see in Figure 5, the game was influential in establishing meaning for the Pacman but not the other icons. Here the dominant meaning was something similar to "I'm going to eat you".

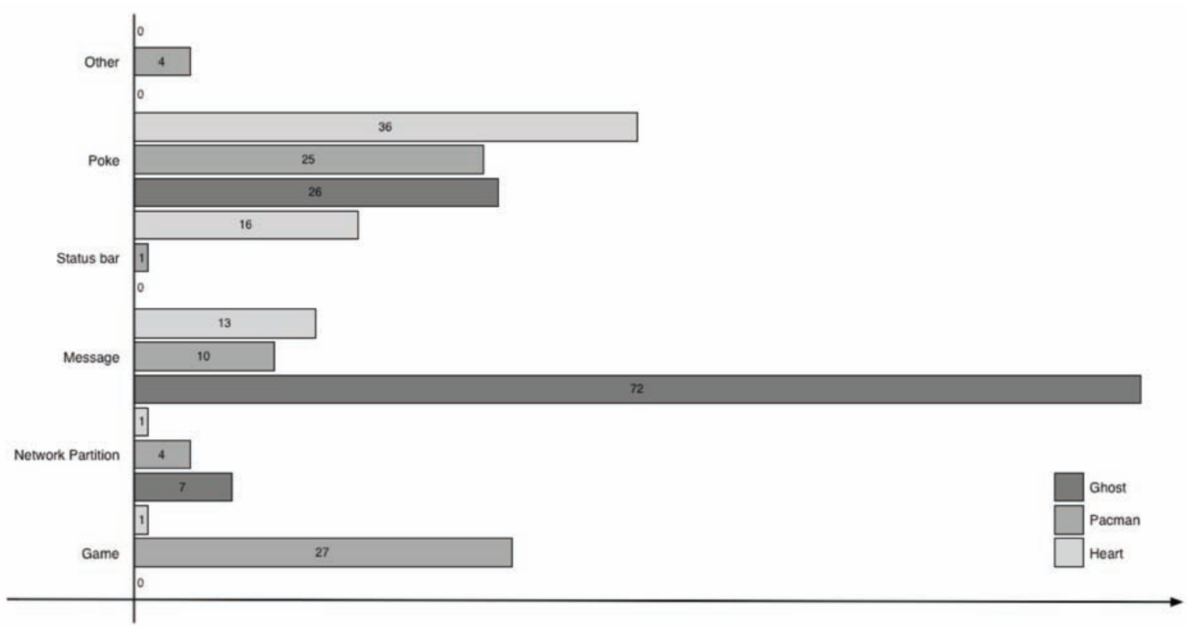
The variation in cultural meanings attached to the ghost icon can be seen reflected in the variety of uses to which the ghost is put. More so than either of the other icons, the ghost is used to both demand and give goods and services and information. The ghost was used to mean anything from 'don't disturb me!', 'boo!', 'guess who', 'let's meet', 'where are you?' and 'hi'.

The Context of Self-Report: Reporting on Meaning

Different forms of data provide different views on a context and they are all helpful in building a picture of discourse in context. This is particularly the case when we cross reference the information. While the multiplication of data is useful it also creates an interesting problem in that it becomes necessary to distinguish between these different types of data.

Often as is the case in this research, the texts that have been produced as a result of an event are numerous and accessible for analysis while the initiating event is not recorded and is thus not accessible to the analyst. Any one of these texts may be treated as our primary text, however,

Figure 5. Taking cues from familiar technology



depending on what our research question is, our relation to the initial event is going to be very different. Understanding how the data fits within a social process needs to be the first step in analysis since the location of the data is crucial if we want to understand the purpose and the function of the text in society.

Because we are using language turned back on itself, we can think about the context of our data as well as the context of the event since these are the texts with which we are dealing. We are using context here as a means of sorting out our data. Each text has its own context as well as a distinct relation to the primary context. This relation is reflected in the contextual description and shapes the values of this text as evidence. This contextual description of the data then allows us to sort data on the basis of contextual similarity before we look at the particular social process, which has been recorded. Thus we have at least two layers of contextual information before we begin to analyze something in context.

Texts may be divided into those that flow institutionally from the primary context and those that are observational and optional such as research. Two potential types of data include observational texts, where the data is a recording by one means or another of the social process of the primary context, or, reported texts, where the data is a report on the social process of the primary context from one point of view or another.

Report texts may not be reporting on the primary social process directly, but on the participant's reactions or responses, feelings or thoughts. As with all report texts, it is possible for them to look forward as well as backwards, hence, they may include projection into the future or commentary on the here and now as well as reflection. It is important to remember that of course any one of these texts may become the primary social process depending on the perspective one takes on the text. The current research takes the form of report and while the use of the icons involved tenor relations that were peer-to-peer, equal and non-hierarchic, the report texts analyzed in the survey have a hierarchic tenor relation that was not equal and varied according to position and education.

In analyzing this survey insight was also gained into how people report intent. Halliday and Matthiessen (2004), in discussing aspects of projection, suggest that there are various ways that reports, facts and ideas are projected. Because the survey at the point at which it discusses meaning is free text and open, participants in this study reported on their own behavior in various ways. These differences illuminate both the ways in which participants viewed the icons and the FindMyFriends system as well as the ways in which people report on meaning making behavior. These variations are set out in Table 3.

In any exchange, meaning is open for negotiation and we can see this in the responses to the survey, just as the icons themselves were open for negotiating meaning as can be seen in Table 3. The variability in this response is discussed in the section below.

The findings suggest that the use of icons in smart spaces is strongly linked to tenor variation. The summary of findings across the three icons is set out in Figure 6. This includes the speech functions of giving information or goods and services or demanding information or goods and services as well as respondents who stated that there was no meaning to the icons, that they didn't know what the meaning was or that meaning was open.

Icons were most frequently sent to serve the speech function of giving information. This was particularly true for hearts, which also had a very low 'don't know' response and were more likely to be sent to people not in a user's friend list. Hearts were much less likely to be seen as demanding goods and services or information as compared to ghosts. Ghosts were also seen as more open in meaning and more likely to record a 'don't know' response. They were also less likely to be used overall. Although all icons came from the game pacman, it was only the Pacman icon that showed a strong connection in meaning to the game with a very common meaning being "*I want to/am going to eat you*!".

Participant responses suggest that they understood these to be realised by a statement and when not realising a minor clause to be in declarative mood. Most frequently responses were minor clauses which were seen to be a kind of poke approximating '*boo!*' for ghost, '*hey you!*' for Pacman and '*hi there!*' for heart, although heart most frequently was seen to mean something like 'I love you'. All icons were seen as an opportunity for flirting although the strongest connection with this potential was the heart, which has obvious romantic associations from its wider cultural use.

Use of icons appears from the data to be almost exclusively move initiating, however, response with icon was also possible and appears to have been the desired response in some cases e.g. *"Hmm, if you give it to somebody you are interested in then it is a bit funny and exiting if you get one*". The expected response was usually acknowledgement of some kind but the realisation of the acknowledgement varied. Participants could of course ignore the icon and not respond, they could respond with an icon in return either the same or different, they could respond with another modality by either calling the person (provided they have their number) or by seeking them out in person, which is exactly what a location-aware system can facilitate. In the current study, users sought people out in person after locating them through the FindMyFriends system 55% of the time.

Some participants wanted to use the icons as a status message just to let friends know they were there and whether they were available or not, much as one might use the instant messaging traffic lights icons. Interestingly this appears to be much more the case for the ghost than for any of the other icons. Others used the icons to send their friends a message, while others used them to get their friend's attention and appeared to expect a physical response such as meeting.

Findings here appear consistent across both the heart and pacman icon with greater variation existing for the ghost icon. This variation may be seen to relate strongly to variations in tenor. The distribution of the icons varied throughout the social network of the user, with users showing a strong discrepancy in who they sent each of the icons to. While icons were only ever sent to friends – making them network internal – use and understanding of the heart, Pacman and ghost showed variation on the basis of social distance amongst other key tenor markers.

While bearing a strong resemblance to common emoticons, the icons were often not used to convey an emotional state; rather they were used to distinguish between levels of closeness in the participant's social network. Participants most often sent hearts only to very close friends, the pacman to friends and ghosts to anyone.

The semantics which emerges here is a social network dependent semantic, with the general meaning of 'hi there' taking on a more specific meaning for each interaction. Hence while there was potential to use the icons as emoticons, the meaning in the current research appears to have followed the purpose of the devices as tools for locating. Thus, the icons were primarily used to attract attention rather than to share a mental state, although this is not always the case and appears to vary across the icons. This tendency suggests that meaning will be shaped by the function of the device and guided by users' prior experience with technology they perceive to be similar in function.

IMPLICATIONS AND FUTURE DIRECTIONS

Understanding icons from a semiotic point of view gives designers more insight when designing systems. Much research has gone into the study of icons, however this research has typically focused on visual design aspects (see for example Chang (1987)). Typically, icons have already had a function and distinct meaning attached to them with a clearly defined purpose. The current research has examined the use of icons from a semiotic point of view by focusing on the use of the icons in context and the users' understanding of the meaning of these icons. Future work may be well positioned to capitalize on the multimodal work of researchers such as Bateman, Denlin and Henschel (2004). The icons in this study did not have a meaning or purpose assigned to them prior to the study. It was left for the users to create a meaning and purpose for the icons. In this sense, the semantics can be seen to emerge from the context and social network of the users.

In discussing the study of online social networks, Garton, Haythornthwaite and Wellman (1997) suggest that social network partitioning is a function of what gets sent to whom. This classic application of social network theory suggests that the analyst can gain access to the users' network by examining the exchanges that take place. In the case of most social network applications, and certainly in the case studied here, the users' network is already partitioned and on display. It appears from our analysis that variability in meaning of the icons emerges from an already partitioned network. This can be explained at least in part by the high degree of codal sharing and tight social network structures amongst the users. The more dense and multiplex the social network and the more history network members have in common, the more likely the members are to share meanings in common. Thus the meaning of an icon will vary between different members of a social network.

As Hasan (1980) suggests, the functional nature of a code predisposes it to certain meanings. The function of the icons appears to predispose them to meanings that gravitate to an offer of some kind, whether that is making a proposal or offering some form of information. The very simple meaning of "hi there" appears to become more and more specific in meaning depending on who the icon was sent to and as the users become more familiar with the tool. This is similar to the patterning that we see in communication more generally. Humans as a species are inclined to interact (Halliday, 1978) and will make use of whatever communication tools are available. The fewer tools we have available to us to make meaning through the more work we make the tool do.

In this case the restricted tool set of three icons gets made to do a lot more work than it might otherwise do. Further study of this data set and others like it may allow us to develop a better understanding of icon use. It may also be possible to use Hasan's (1996) semantic networks to design more contextually sensitive and network sensitive icons. However, it appears from our findings that there may be a trade off here in that more variability in the meaning of an icon the more uses to which it can be put but it is less likely to be used at least in the short term (e.g. the ghost). Against this, less variability in meaning appears to lead to fewer uses to which the icon is put, but more uptake of the icon at least in the short term (e.g. the heart).

When icons are used in a technical setting they seem to implicitly carry some history from other similar technical settings, as the case of the FindMyFriends' icons, which some of the users reported using in similar ways as they would use pokes in Facebook. Further, as the icons clearly are used as a technological contraption to separate a social network it could be argued that they actually function as mediating artifacts. From the perspective of Activity Theory (Leont'ev, 1978; Bødker, 1991) it is possible to fit icons into the role of mediators. Following the idea that the meaning that users ascribe to icons is emergent, yet clearly affected by history, the cultural-historical extension to Activity Theory (Vygotsky, 1978; Engeström, 1987) combined with a semiotic understanding appears to be a promising perspective when dealing with message-icons in software. However, this is currently unexplored and requires more research to clarify.

The understanding of icons from a combined perspective of semiotics and Activity Theory is even more important when we are dealing with the extension of location-aware systems, known as ambient intelligence (Ducatel et al., 2001). In ambient intelligent systems icons might appear in the physical world and refer to information in the virtual world. So by physically tagging the real world it is possible to convey meaning to a user by allowing the user's mobile device to read this tag. Current examples include RFID tags, barcodes and Cyberstickers (Rahlff, 2005). A conceivable extension to this is to tag the physical world with icons that make sense for both machines and humans; much like the well know Hobo signs (Richards, 1974). The same insight is equally important in the opposite case, where signs in the virtual world refer to information or goods in the physical world. This is particularly important where users of a location aware social network service may use icons to make things happen in their environment. Further study of this potential will lead to systems that are better suited to their users' needs and desires.

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KEY TERMS AND DEFINITIONS

Activity-Theory: Originating in the work of Vygotsky, L and Leont'ev, A., Activity theory is a descriptive tool for theorizing a social process. It unifies consciousness and activity and importantly for research on intelligent devices, locates artifacts within social processes.

Context: Context is taken in this chapter to refer to all aspects of a social process that have an impact on meaning and shape the outcome of a social process. This ranges from the material situational setting through to the topic, the modality and the relationships between the social actors.

Disruptive-Technology: Disruptive technology refers to new technology that has no clear antecedent in existing technology. This makes predicting how users will respond to the technology difficult and can cause problems for implementing safeguards. The introduction of disruptive technology can cause major shifts in social functioning.

Emergent-Semantics: Emergent semantics is an evolutionary view of semantics that treats meaning as an ensemble relationship. Meaning is seen to emerge from collective use in context and is thus dependent on variability in social networks and context. It is decentralized and self-organizing.

Iconic-Signs: Signs are objects that signal something and may be made to carry meaning in some way. In this case iconic signs is referring to signs that look like what they are meant to represent.

Location-Awareness: Location awareness is the ability of a device to share another person or object's physical location. This may be precise or imprecise and can relate to either the user or the place.

P3-Systems: P3 systems are social network systems that link people to people and people to geographical places and can be divided into people centred and placed centred approaches. People-centred systems typically use absolute user location or proximity. Place-centred systems typically employ either physical or virtual places as their representation.

Social-Network: Social network refers to both the services/systems that link people to people and the description of groups of people by means of studying their connectedness.

Systemic-Functional-Linguistics: Systemic functional linguistics is a social semiotic perspective on language that views all behavior as meaning bearing. It is a stratified approach that is organized around functionally organized realizational systems. It has developed from the early work of Halliday, M.

ENDNOTE

[1] The association between patterning at different levels of language is linked to the stratified approach that SFL takes and these groupings are metafunctionally arranged. Thus we have chosen to focus on the interpersonal metafunction at the level of semantics and context.

Chapter 33
An Analytico-Philosophical Discourse to the Pragmatic Approach to Digital Communication in Nigeria

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ABSTRACT

The wave of the current unprecedented advancements in Information and Communication Technology, which spread in Nigeria, nay Africa is becoming unfathomable has some linguistic implications worthy of philosophical appraisal. The chapter discusses how the new digital milieu is changing human understanding and use of language in social and formal discourse. Contrary to the popular assumptions that the digital communication feat is holistically advantageous, the chapter argues that the advent of digital communication in Nigeria has occasioned unconsciously, more linguistic and social problems on the psyche of Nigerians. Through a careful survey of the style of sending text messages and mails via mobile phones and the Internet, the chapter establishes that Nigerians adopt pragmatic approach, which defies any respect for grammatical and linguistic rules in digital communication. Though, this ideological basis, the chapter argues, might hold some immediate communication effects for the senders and recipients; in spite of these supposed benefits, the chapter argues that the pragmatic approach to digital communication in Nigeria is inadequate. Thus, a case is made in the chapter for a more resonant underlying philosophy of language, which will guide digital communication in contemporary Nigeria.

INTRODUCTION

The unprecedented breakthrough in Information and Communication Technology in contemporary world has continued to attract commentaries across the world. Such commentaries range from the promising benefits of Information Communication Technology in different facet of life to the ethical issues emerging from the technological feat, to issues of policies reforms to suit the present realities. This new drift in Informational Commutation Technology has inaugurated a new kind of communication process, digital communication.

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Digital communication is a form of communication that involves a process of electronic transmitting of information, data, ideas, thoughts and messages between the sender to the receiver (s). Transmitting digital data and information involves discrete messages which allow for greater signal processing capability. Signal processing is capable of detecting and correcting errors caused by random processes in the course of communication. In contrast with the traditional communication system, digital communication is quickly edging out analog communication. This is because of the impressive manifold of utility values arising from digital communication in our world today. For example, it bridges communication gaps among people, which conventionally, had been a barrier and transforming our notions of work, community and everyday activities in the banking/commerce, education/schools, leisure/entertainment, and other facet of human existence.

The focus of this paper is not to controvert the ostensive benefits of digital communication. Rather, our concern in the paper is to argue with specific reference to Nigeria's experience, that digital communication has occasioned a new kind of problem, worthy of philosophical examination. This problem is linguistic in character and it is vast taking root in the sub-consciousness of Nigerians in their non-verbal digital communication process. What is the nature of this problem and how perverse is it? What is the ideology guiding digital communication in Nigeria and how adequate is it? What can be done in rescuing the situation? An attempt to provide answers to these and other related questions shall engage our attention in the rest of the paper.

BACKGROUND

There is drought of literature emanating from Sub-Saharan Africa on contemporary developments of policies for digital technology provision and regulatory issues and challenges in Africa. This dearth of literature in this new era of technological and social concern is more acute specifically in the discourse on philosophy and digital communication. Some of the prevalent trends in literature address the importance of digital communication, the digital divide on the world scene- between the technologically advanced nations of the world and the third-world nations, which African states are predominantly christened.

In discussing the importance of digital communication and how it is aiding current development process in African states, Ajimobi Kunle said:

Digital communication provides better means of communication when compared at a larger scale with the predominant analogue means of communication. Digital communication is integrating economic activities (especially Agro-business which represents 80% of African economic activities). It is now contributing to the float of new phenomenon of e-….? Such as e-library, e-government, e-health, e-policing, etc. On a general outlook, digital communication is now making public services more efficient; improving infrastructure and productivity; and improving democracy and participation mechanisms (Ajimobi, 2003: 15).

Truly, ICT through globalization has made possible global communication and inter-connectedness, and it is in this sense that they are mutually dependent and inclusive. Through verbal and non-verbal digital communication, traditional boarders and barriers between countries have now become less meaningful because of the interconnectivity afforded by the Internet and telecommunication. In Africa today, like elsewhere, individuals, groups, companies and states now engage in global transactions and communications, sharing greetings, wishes, emotions, values and perspectives.

This development in digital communication has led to the issue of digital divide and its complications on the existing social relations and gap between rich nations and poor nations. Babatunde Okunola underscores this in his remark that:

There is the lingering danger that cyberspace will consolidate the gap between the haves and the have-nots, and the forces of global apartheid between the West and the Rest…. The digital divide is affecting comparative migrations of people (Okunola, 2004: 10).

Okunola's comment is well observed. The digital divide is still at its most extreme in Africa where the use of Information and Communication Technologies (ICTs) is at a very early stage of development compared to other regions of the world. While this problem of digital divide is important and currently gaining the attention of scholars on the world scene, more pertinent and of immediate concern is the linguistic problem of philosophical relevance arising from the use of digital communication among Nigerians.

Mobile cellular phone usage and Internet communication have increased dramatically in Nigeria since 2001 and among Nigerians. Through text-messages from mobile phones and e-mail messages, inter-personal, inter-group and international communications have been increasingly fostered. This mode of digital communication surpasses the use of traditional means of communication. However, this new process of digital communication in Nigeria is guided by the philosophical principle of pragmatism. Before examining what this linguistic problem of digital communication entails, a consideration of the underlying philosophy of digital communication in Nigeria is apposite first.

THE IDEA OF PRAGMATISM

Pragmatism is a philosophical tradition that is characterized by the belief that the meaning of concepts is to be sought in their practical bearings. It is a philosophical tradition that is developed around a theory of truth and meaning. It grounds the fact of truth and meaning within the purview of adequate human experience and social existence. Pragmatism is inspired by the belief that truth is pre-eminently to be tested by the practical consequences of belief. Pragmatism delineates heard thinking and reflection of human experience in the formation of theories or principles for solving human problems. Pragmatists aver that the ultimate test of a theory's worth is its practical usefulness. It is a philosophical tradition that insists on the need for deductive assessment and constant empirical investigation of hypothesis and theories for human good and progress. In the pragmatic quadrangle, the function of thought and reflective activity is basically to guide human action.

Pragmatic doctrine affirms that it is only in the struggle of intelligent organism with the environment that theories acquire meaning. Most of the thinkers who subscribe to pragmatism actually point to some connection with practical consequences or real effects as vital components of both meaning and truth. Historically, pragmatism as a philosophical tradition originated in America in the late 1800 with its classical forbearers starting with Charles Sanders Peirce, William James and John Dewey. Although pragmatists have some basic areas of convergence, different pragmatists have various and distinct concerns and interests.

C. S. Peirce started the movement of pragmatism. In his popular essay, "How to make our ideas clear", he sees pragmatism as a method for explicating the meaning of ideas and certain kinds of concepts (Peirce, 1878: 286-302). Peirce argued that the function of inquiry is not to represent reality, but rather to enable us to act more effectively. He sees inquiry as a problem-solving activity such that to develop the meaning of a thought, we need only determine what conduct the meaning is flittered to produce. For him, meaning does not lie in the world out there, it is discovered by the community of inquirers through their practical actions.

William James continued the work that Peirce started. James' insists that the principle of pragmatism should be expressed more broadly than Peirce expressed it. In his extension of pragmatism, James brought in the issue of the truth. This is precisely because he believes that pragmatism should have something to say not only about meaning but also about meaningfulness and ultimately about truth and falsity. According to him, truth is not a name of timeless essence, or else (James, 1907: 38), it will amount to treating the name truth, which is one and isolated, as if it named some one entity in isolation from the concrete phenomenal reality of actual truth and verification. He sees true ideas as those that can be assimilated, validated, corroborated and verified while false ideas are those that we cannot verify. For him, "the true is only the expedient in the way of our thinking, just as the right is only the expedient in the way of our behaving" (James, 1907: 106). The truth is true within the limit of experience.

Thus, the practical value of ideas, what makes their truth so useful lies in the vital satisfactions and advantageous connections they lead and help us establish in experience. James contends that our ideas are actually useful only if they have 'cash value', that is, only if they are useful when we employ them in practical projects. This means that an idea or a philosophical position is true if it satisfied this test of workability.

John Dewey brought pragmatism to its logical conclusion. His approach or brand of pragmatism is referred to as instrumentalism, an attempt to apply the gains of pragmatism to practical movement or an attempt to apply scientific approach to general moral issues. Instrumentalism, according to Dewey, "is an attempt to establish a precise logical theory of concepts, or judgments and inferences in their various forms, by considering primarily, how thought functions in the experimental determinations of future consequences" (McDermott, 1973: 52). Instrumental pragmatism treats ideas as tools in an effort to tackle practical problems. In general, Dewey, posits, that the fundamental idea of various strands of the pragmatic movement is that action and opportunity justify themselves only to the degree in which they render life more reasonable and increase its value (Dewey, 1931: 59).

The foregoing shows that pragmatism looks away from first things, principles, supposed necessity, and looks towards last things, fruits, consequences, facts, etc. It insists the possibilities of action and result.

PRAGMATISM AND DIGITAL COMMUNICATION IN NIGERIA

Given the above clarification on pragmatism, it is important to state that while pragmatism might hold some immediate digital communication effects for the senders and recipients; in spite of these, the pragmatic approach to and basis of digital communication in Nigeria is philosophical inadequate. Pragmatism itself is philosophically deficient, and by extension, its underlying ideological basis of digital communication in Nigeria is *ab initio*, questionable. Pragmatism makes action the end of life and it subordinates thought and rational activity to particular interest and profit. Critically, the weakness of pragmatism lies in the fact that it sees the workable as true without testing, whether it is false or not. Mere emphasis on workability is not sufficient and ought not to be substituted for the standard truth. Pragmatism is episodic in nature and cannot be consistently applied to human situation. The usefulness and workability of certain human actions do not guarantee its rationality. Pragmatism may be successful in the pursuit of irrational goals.

The new digital milieu in Nigeria is changing human understanding and use of language in social and formal discourse. This linguistics turn out is commonly found among Nigerians whether in the rural or urban areas, in informal and formal communication literate and semi-literate among well educated elites and averagely educated Nigerians. A careful survey of the style commonly now in vogue in sending text messages and composing mails via the mobile phones and the internet respectively among Nigerians reveals the development of new English language composition and abbreviations.

In the process of sending text message many Nigerians take the short root of abbreviating the contents of their mails without strict respect for and compliance to standard and generally accepted abbreviations in the English language. In many cases, understanding these text messages by the recipient becomes difficult. The reason for this is because in the process of typing the mail content, cognizance is not usually given to grammatical and linguistic rules of English language. While this is not peculiar to Nigerians, the fact of the matter remains that this culture of elastic use of English language in digital communication is just being developed among Nigerians, cutting across age, social creed, status and sex not only in digital messages, but also in conventional and formal written discourse.

For specific illustrations of this linguistic problem, below are instances of the style of composing and sending mails in digital communication through the mobile phone among randomly selected Nigerians:

i. L2 strs tel gr8er lesons, b tankful 4wat u dis far, fbr may b shrt, u II av gr8 storis 2tel dis month. U re stl clse 2 my @

(Little stories tell greater lessons. Be thankful for what you have. God's grace brought you this far. February may be short; you will have greater stories to tell this month. You are still close to my heart).

ii. Bd tm is not only d tin 2 slip bt d tin 2 thk God of dose u rlly chershed nd kia 4 swt drm.

(Bed time is not only the time to sleep but the time to thank God for those you really cherished and care for. Sweet dreams.

iii. Tel dos wh cnt c d gud in u2 hld on tel ur critics 2 pls stay tune & tel ur admiras dey ven't sn notn, cos ur otor God is re-editn ur pgs, Gd dy.

(Tell those who cannot see the good in you to hold on. Tell your critics to please stay tune and tell your admirers that they have not seen anything because your author, God, is re-editing your pages. Good day).

iv. I lv 2 tins, a rse & u; a rose 4 a sht while, & u 4 d rest of my life. (I love two things; a rose and you. A rose for a short while, and you for the rest of my life).

v. Wtx up. Re u stl dere? Cn w hk up at d clb later in d dy? (What's up? Are you still there? Can we hook up at the club later in the day?)

vi. Sorow lks back, wries lks arnd, fate lks up. Let ur fcus b up wen u go out dis wk lov y & mis u. (Sorrow looks back; worries kook around; fate looks up. Let your focus be up when you go out this week. Love you and miss you).

vii. Amg flwers, there is rse. Amg stones, thre re diamds, and amg frds, thre is u wit u my luv grows. (Among flowers, there is rose. Among stones, there are diamonds; and among friends, there is you. With you, my love grows).

viii. Hw is life? As it is impocible 4 anyi 2 count d snd, so shall ur success in life b uncountable. May u ave brektru in all ur under takgs. Hpy new yr. (How is life? As it is impossible for anything to count the sand, so shall your success in life be uncountable. May you have breakthrough in all your undertakings. Happy New Year).

ix. Der is nte so dat we can aprcte dy; sorrow so dat we can aprcte joy; evil so dat we can aprcte gud, and u so dat I can aprcte luv. (There is night so that we can appreciate day; sorrow so that we can appreciate joy; evil so that we can appeciate good; and you so that I can appreciate love).

x. Do u tke me 2 b ur lwful txt mate, 2 lv & 2 hld, in nce & gd aspirtn, in pur signal & no service, til low crdt do us part. (Do you take me to be your lawful text mate, to love and to hold, in nice and good aspiration, in poor signal and no service, till low credit do us part).

When we look at all the above instances of texting messages among many Nigerians, we will realize that they are all fraught with spellings and punctuations errors. Besides, they are all guilty of fallacy of amphiboly, which involves vague words and unclearness in the abbreviations of words as well as their meanings. Fallacious reasoning and expressions do not foster effective communication. This trend of written communication is now transcending the four walls of digital communication both at the interpersonal and inter-group levels to written communication in formal and non-digital written communication discourses.

In the course of grading communication scripts of students in Nigeria today, at least in five different courses that I have been teaching both at the undergraduate and post graduate levels in the past five years now, cases of unsynchronized abbreviations of words and expressions characteristics of digital communication in Nigeria are now being experienced in students' answer booklets. Even in long essays writing, the digital communication style has unconsciously gained entry deep down the psyche of Nigerians that hardly do without in their written expressions and communications. In all these, it should be borne in mind that the ideological basis upon which Nigerians unconsciously ignore grammatical and linguistics rules of the English language in the digital communication is pragmatism.

The pragmatic approach has the advantage of aiding immediate communication effects for both the senders and recipients of mails in digital communication. In addition, the un-systematized and arbitrary abbreviation of words and expressions in digital communication allows for more content space and more discrete messages for transmission. Many Nigerians are now being turned, unconsciously, into prisoners of digital communication paradigms and their capacity for grammatically correct and understanding of the English language is increasingly dwindling. This linguistic problem, we should note, is not currently as a result of the deficiency in the technology of digital communication, but rather, in the misuse of digital technological gadgets by many Nigerians.

Certain objections might possibly be raised against the above conclusion. One, it is arguable that mobile phones and digital communicative gadgets did not *ab initio,* have 'predictive text input' at their earlier stage of production. Second, it is also arguable that language is not untouchable. Given the elastic and creative nature of language, any user can stretch and create their own way of using symbols when communicating in order to suit his/her whims and caprices. Crystal's (2008) argument on evolution of linguistic style is along this line of criticism. The implication of this view is that since the rule of language are generated through social consensus, one cannot then rule out the possibility of evolutionary social agreement on linguistic style that could generate the breaking of the same rules.

On the surface level these objections appears validly appealing. But upon further critical considerations, their supposed strengths become gratuitous. The linguistic problems arising from the use of digital gadgets in the process of communication are recent development, and consequently, not mainly products of earlier mobile phone technologies. New models of digital mobile phones and telecommunication gadgets flood the Nigerian market and many Nigerians are more disposed to these new technologies. Giving consideration to the fact that many of these new mobile phones have 'predictive text input', the problem has to do more with the misuse of digital technologies by many Nigerians as a result of their pragmatic orientation.

Furthermore, the problem with the second argument is that it carpets a false assumption that the possibility of a new evolutionary linguistic style generated with social agreement on the new use of symbols will run arbitrarily against the officially approved language of a state. In Nigeria, English is the lingua franca, and without being pretentious, all communications (at least in the formal sense) in the language should strive to conform to the rules and syntax of the English language.

SOLUTIONS AND RECOMMENDATIONS

In order to change the pragmatic basis of digital communication in Nigeria, the underlying philosophy of digital communication in Nigeria, which is pragmatism, should be reviewed in the light of more viable philosophy of language that can effectively and efficiently guide digital communication. On this note, we find Russell's theory of description as ideologically suiting in correcting and avoiding the grammatical and linguistics mishaps in digital communication in Nigeria.

The theory of description is one of most significant contributions of Bertrand Russell to the philosophical study of language. The problems of existence, meaningfulness vis-à-vis that of referring have gained momentum among philosophers of language. It was in an attempt to solve this problem or to clarify the issues involved in those problems that made Russell to postulate his theory of definite description or denoting expressions. The thrust of his theory centers on the fact of reference as an account of reality, which is not only adequate for formal logic and scientific tasks, but also conforms to the bulk of our intuitions of common usage. Russell strongly believes that for a phrase to refer there must be something existing it refers to, otherwise, such description will not have reference if the described entity does not exist. According to Russell, there are two kinds of descriptions: the definite and indefinite or ambiguous. A definite description is a phrase of a form "the so and so". Such description refers to a unique individual while an indefinite description is a phrase of the form: "a so and so" and it does not refer to a unique individual (Russell: 1910:30).

Russell (1967: 93) believes that fabulous monsters like sea serpent or unicorn cannot be said to be real. It is grammar that has misled many to think that such description as 'a unicorn" must refer to an existing object. He proceeds further to argue that even the traditional logic leads to such mistake. "I met a man" and "I met Jones" would count traditionally as propositions of the same form while in actual fact, they are quite different forms; the first involves a proportional function but the second proposition involves an actual person – Jones.

Russell specifically pointed out that Meinong is one of the logicians misled to think that there are unreal objects, and he calls Meinong's argument a failure of the feeling for reality (Russell: 1904; 210). For him, nothing unreal should be admitted and to attribute significance to groups of symbols which have no significance is to fall into the error of admitting unrealities.

Definite description, Russell tells us, is a statement which is of the form "the so and so". It only has application in the event of their being one so and so and no more. The central theme of theory of description is that a grammatical phrase may contribute to the meaning of a sentence without having at all when it is taken in isolation (Martins: Ibid; 138). The definition of "the so and so" phrase is to be sought in the definition of the proposition in which the phrase occurs and not a definition of the phrase in isolation, that is, phrase like "the king of France is bald" and "the author of Waverly: are meaningless unless they occur in a sentence (Ibid). Descriptive phrases are incomplete symbols when they are considered in themselves and have no practical use to us, but when they feature in sentence; they have some other qualities, which add to the meaning of the proposition.

In this case of "the so and so", the reference is to one definite, unique individual to be picked out by application of "the". This is also against Meinong's thought that the use of 'the' is sufficient to show that some objects which either exist or subsist are being referred to. Russell is of the opinion that "the present king of France is bald" would not refer to anything when there was no existing king of France. In short, he wants to retrieve philosophers' wild imagination from supersensible world of danglers to the world of concrete objects or existence.

In Russell's analysis, existence is bound within the scope of define descriptive statement and where it is not fulfilled such statements are taken as false (1905: 479-493). Russell is of the view that when a definite descriptive phrase or statement does not denote or describe anything, the phrase or statement is false.

The meaningfulness of digital communication can be situated within the context of Russell's philosophy of language. Digital technologies have symbols in their programmes. These symbols or codes have rules, which must be followed if they are to convey meaningful message. In Russell's view, such symbols become meaningful only in terms of their referential sense. The implication of Russellian theory of description on digital communication is that, it seeks to eliminate those linguistics forms, which embody myths and superstitions, in order to have an effective communication system.

The concern of Russell in his theory of definite description is that since language is at the very heart of communication; for it to be meaningful, it must reflect the existence of certain idea. However, while recommending Russell's philosophy of language as foundation for digital communication in Nigeria; it is our conviction that the referent of a sentence is not its meaning as Russell thought. This is because ordinarily, we can construct language (sentences) and even understand the ones in non- existence (e.g. unicorn, golden mountain etc). While sentences containing non-existent entities are meaningful in one hand, on the other hand, they are incapable of being referents. The fact that they are non-referential does not imply that they have no meaning.

Rather, on our part, we are of the view that sentences (languages) have meanings because of the words in them, while the words only have meaning because they are fitted to play a role in the sentence. Hence, Russell's descriptive theory of meaning, to an extent, is inadequate for digital communication and semantic purposes. In other words, words and phrases (languages) should be taken to have a systematic effect on the meanings of the sentence in which they occur. It is only through this that communication can be effectively enhanced.

On a positive note, Russell's theory of definite descriptions and the underlying notion of reference could be argued to offer an account of reality which is not only adequate for formal logical and scientific tasks, but also conforms with the bulk of our intuitions of common usage, especially in digital communication. Russell considers the statements of logic as the skeleton forms of ordinary language statement and argues that any serious retinal statement must have the form of some statement of logic. To him grammar must be approached with caution devoid of fallacy and ambiguities in order to be a guide to meaningful reality. The methods of logical analysis are required if we must effectively dissipate certain problems resulting from the nature of language in digital communication.

Beyond the theoretical level of Russell's philosophy of language and the meaningfulness of digital communication, there is the need to explore further practical and actual technological solution to the problem. In other to arrest this situation, I believe that the users of digital communications should be conscientized and appealed to understand and utilize the internal mechanism of corrective English language mail and text composition in digital communication gadgets. Many of these digital communication gadgets have "predictive text input" also known as T9, which makes typing long message much easier and faster. Rather than having to press a key multiple times to select the appropriate letter - for instance punching the number two key once for A, twice for B, and three times for C – you can simply spell out a word. The software will guess the word you are trying to spell and fill in the blanks, therefore reducing the overall number of key punches. Different words are being displayed as users type out each letter, and the phone tries to guess the typing and composition of mails.

Having finished typing a word, and the wrong word is displayed, the *key on most Nokia phones (except 5510 series), and the 0 key on newer Ericsson phones, should be pressed to cycle through a list of possible words. Through this, one will usually find the word, which one is looking for in a single or double click(s). For example, if one types the word "vest", one will see the word "test" when one finished typing. Pressing the *key on the Nokia phone changes the word to "vest". Another example is the word, "cool". When it is typed and one clicks the * key, it will change to 'book'. A further press on the * key will change the word 'book' to 'cook', and later changing to 'conj'. Through this process, one can predict, search and guess correct spelling of words when typing messages on digital mobile phones.

To turn on predictive text input in Nokia phones, start writing a new SMS. Press the "options" key to get into the SMS message options. Scroll down to the dictionary entry and press OK. The two options are dictionary off and English. Scroll down to English and press OK. The message "T9 dictionary activated" appears. New Ericsson phones have the T9 system switches on by default and can be switched off by going into the settings menu, then language, hen T9 input select on or off. A strict use of this internal mechanism of mail composition will maximally reduce the rate of grammatical and abbreviation blunders peddle around in contemporary Nigerian use of digital communication.

FUTURE TRENDS

Given the theme of this chapter within the larger context of the book's theme, it is apposite to say that many complex issues will emerge and continue to generate reactions and counter reactions in the coming Information Age. The vast majority of such issues are still largely unknown in view of their newness and dearth of current literatures reflecting their complexities. They will only come into view in the course of further philosophical reviews and appraisals on the one hand, and on the other, when the dynamic and spontaneous advancements in ICT generate them. This chapter is important and timely as the reactions emanating from it will continue to expand philosophical frontiers and research areas in relation to Information technology.

CONCLUSION

Thus far in the paper, we have examined the pragmatic approach to digital communication in Nigeria. We do recognize the profound opportunities, benefits and promises of digital communication. Indeed, as a consumerist nation, Nigeria nay many other African states, has continued to explore the potentials of digital technology in their communicative systems. However, their use of these digital technologies especially in the non-verbal communication process of sending text messages and mails through their mobile phones and the Internet has been unconsciously abused with respect to the neglect of grammatical and linguistic rules. The cause of this blatant disregard is not as a result of their ignorance of the existence of these rules. Rather, it is more as a result of their guiding digital communication philosophy, which we identified to be pragmatism. This pragmatic approach has unavoidably led to an evolution of new linguistic style, whose underlying philosophical principle is inadequate. And in pursuit of a more resonant guiding philosophy of digital communication in Nigeria, we defended Russellian philosophy of language. It is our conviction that Russell's theory of description can aid linguistic meaningfulness in digital communications in contemporary Nigeria.

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KEY TERMS AND DEFINITIONS

Digital Communication: Electronic transmission of information through any of the digital media.

ICT (Information and Communication Technology): Refers to a generic name for all of the technologies involved with communicating with computers.

Pragmatism: is a philosophical tradition that is characterized by the belief that the meaning of concepts is to be sought in their practical bearings.

SMS (Short Message Service): A text message sent on a cell phone, allowing up to 160 characters.

Chapter 34
Impoliteness as a Model for Virtual Speech Community Building

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ABSTRACT

The aim of this chapter is to account for linguistic strategies of breaking into a virtual speech community, particularly the community the author refers to here as the Pen community. Virtual communication necessitates accommodations not otherwise engaged in face-to-face conversation, and the Pen community is both virtual and leet. Being leet necessitates interactional behavior consisting of techie knowledge, leet speak fluency, and a shared interest in the venture of building and maintaining a leet identity online. The goal for this ongoing research is to understand virtual conversational behavior and its role in leet speech community building. With a brief discussion of the literature on sociolinguistic perspectives as well as pragmatic theories pertaining to conversational behavior (Watts, Ide, & Ehlich 2005; Culpeper, 1996), exchanges from three threads of discourse from the Pen virtual speech community are accounted for. The notable features of discourse are the strategies employed by participants in order to create, build, foster a sense of place and identity, and strengthen said communities. The Pen community's discourse permits examples of strategies undertaken for this collective effort through attempting to enter into the community and become a member, topic shifting behavior, and flaming. The author operationalizes each of these examples via Culpeper's Impoliteness model. Included here are a brief review of relevant literature, a discourse analytical approach to the interactional behavior found in The Pen community, and conclusions about how a leet speech community is built virtually. The Impoliteness model serves well here as a starting point for further research on virtual speech community building.

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INTRODUCTION

Situated within frameworks of social pragmatic theories, including Politeness (Brown & Levinson, 1987; Watts, 2003; Watts, Ide, & Ehlich 2005) and Impoliteness (Culpeper, 1996), the aim of this paper is to account for linguistic strategies of breaking into a virtual speech community. Anderson's (1983) notion of imagined communities is an apt description for those communities which are built and maintained online. Unlike face-to-face situations, online imagined communities are specialized not only in their linguistic strategies, but in the foundations upon which the communities themselves are built. With a brief discussion of the literature on sociolinguistic perspectives as well as pragmatic theories pertaining to conversational behavior, exchanges from three threads of conversation will be accounted for via the frameworks discussed.

Virtual speech communities are as varied as those in face-to-face interaction, and the discourse within these communities will vary accordingly. Notable features of discourse in virtual communities are the strategies employed by interlocutors, to use the term for describing the extension of "speech events" in virtual space, in order to create boundaries of inclusion and exclusion, build, foster a sense of place and identity, and strengthen said communities. I examine the discourse practices of one particular virtual speech community, which entail examples of strategies undertaken for this collective effort. While all speech communities may have distinct discourse practices, I do not intend to present those of this community to be universal; rather, this discourse is one of many possible examples, as communities vary widely across the virtual landscape. Hence, the ethnographic information gleaned from this community's message board archives is merely situated within theoretical frameworks of pragmatics and discourse analysis in order to attempt to account for the similarities and/or differences in the manner whereby communities are built online versus those built face-to-face.

Specifically, if a male-dominated community is built on a few principles of collective interests being discussed online, such as is the case in this community, then the question I raise is whether Impoliteness (Culpeper, 1996) is more often the guiding pragmatic concern. Face-to-face verbal speech events or encounters such as verbal dueling (Dundes et al, 1970) or signifying (Labov, 1972) are considered ritualized in nature. Contrarily, the strategies observed in building and maintaining this particular community seem to fit the description of these so-called ritualized events when they are in fact a new practice fitting nicely within the older models of ritualized talk yet occur more often than would ritualized talk. This notion is supported by examples from the message board data in the analysis section.

Unlike chat rooms, the Pen discourse is asynchronous, thus a running tally of all threads appears on the home page of the forum. Upon entering the message board forum, a participant sees a list of threads by title (which the initiator of the thread gives) and then has the option to click on the title to read the thread. If one is not registered as a member, s/he cannot post a reply (or begin a thread for that matter). When one registers, s/he chooses an *avatar*, or a name for herself, which identifies to the community of established members that someone new has arrived. The administrator has programmed an application into the website that automatically attaches a caption to this *avatar*, which always first appears as "neophyte Pen." This label serves to place the new member as low status in the community, but still recognizes her entry. Once the new member posts a particular number of times, the caption then changes to "member with a member," blatantly signaling to both the user and the community that this person has now been approved as a participant and gains a higher status as a member in the community with some level of authority (in the Pen case, a metaphorical penis). This identity marking continues, usually with the addition of images or animated image files along with a more personal caption describing her Pen personality.

Another important note is that once a member is established, her *avatar* appears at the top of the thread title page if s/he is online and visiting the site at the time. Lurkers are impossible to count or describe, as they are not registered on the site, but evidence exists to their prevalence, as most members admit to lurking for some time before posting to the board. The website and its message board has been in existence since 1999, and original members are still active in the community. The original conception of the community evolved around self-described technologically elite people who gathered to discuss other people who were not as skilled in computer technology as they are. Original topics raised stemmed from their work in tech support fields, but broader topics emerged from their shared interest in technology in general, shared affinity for sexual topics, and shared elitism in literature and new information. These categories underline the normative topics raised on the Pen community message board.

The archived message board contained within the website of the Pen community are vital for retaining a collective memory of its members. Without a shared history that is documented and unchanged, unlike folklore or oral histories, the archive offers a record of naturally occurring data which need little transcription. One could thus posit that a virtual community's history, specifically the creation or building of the community, is absolute and real. Members of the Pen community are strongly committed to being members of this particular group. They share the history of its creation in their memories, both collective and individual whether or not they were present at the inception of the group.

Relevant data is taken from the archived message boards of the Pen particular virtual speech community. The Pen message boards consist of several threads of conversation which showcase turn-taking and interruption for thread topic continuity and derailment. Several discourse strategies which highlight new participants' attempts to break into the community and active participants' behavior in order to maintain the sense of membership and identity within it. Another speech event which provides much insight into the aspect of community and of communicative competence is the *flame war*, a series of heated discourse exchanges whereby members and, at times, non-members create and mete out tensions and/or bond. The *flame war* speech event is salient when analyzing the mechanisms employed toward achieving communicative competence in the community, because it is precisely within these exchanges that acceptable or appropriate behavior comes to light. Only when norms are violated are the unwritten rules of conduct understood. Without *flame war*s, the knowledge of the community's members would remain tacit and very difficult for outsiders to ascertain.

REVIEW OF LITERATURE

A wealth of literature precedes this project, for which I will only discuss those theories which are useful to the analysis of the discourse at hand, chiefly pragmatic strategies employed in entering a community and the communicative competence acquisition of members of speech communities.

Rheingold (2000) explains building virtual communities from his perspective of being an administrator for an early online community in the 1980's. The essence or identity of a real person being part of an imagined, or virtual, community is achieved through the conversational exchange mediated by the internet. Existence if not identity is established or publicly acknowledged by the nature of being replied to. This completes an exchange in face-to-face conversational behavior as well. The shared background knowledge or sense of place in both mediums is where differences surface. The virtual community is an imagined community and is best explained by Rheingold's observations.

Different people in cyberspace look at their virtual communities through differently shaped keyholes. In traditional communities, people have a strongly shared sense of place – the room or village or city where their interactions occur. In virtual communities, the sense of place requires an individual act of imagination. (p. 53)

Language accomplishes this for our expression of collective identity. Collectively imagining provides a place for communication in virtual space.

Learning to communicate appropriately in different settings leads to "communicative competence," a concept first developed by Dell Hymes (1962). As humans are enculturated, knowledge is transmitted through various actions and behaviors, including language use. Each language contains a code with complex and arbitrarily assigned meanings for symbols, embedded in that culture's understanding and description of the world. Removing the context and the effect of enculturation from language that is used cannot entirely afford the understanding of how people effectively communicate within or among various speech communities in which they are members (Scollon, 1979; Sherzer, 1987).

Bourdieu's theory of practice (1977) may also be considered an integral or useful concept in conversational behavior. Schemas, or patterned practice of daily life, inform conversational behavior as precedence which is shared or taught through language via enculturation. As humans gain or acquire communicative competence, categories are either created or developed in order to store the information being transmitted. Thus shared context can be argued, at least in part, to come directly from *habitus*.

In order to focus attention toward the particular literature concerned with Politeness or Impoliteness strategies, which account for the theoretical foundation of this project, a clear distinction between the meanings and similar but not identical uses of terms such as face and politeness must be drawn. Face threatening and face saving politeness strategies as well as definitions of politeness have been well documented in the literature ranging from negotiating status or rank in society to conversational maxims for appropriate interaction (Leech, 1983; Brown & Levinson, 1987).

Goffman's (1981) communication model, as it is the basis of further work, is useful as a starting place for understanding "face." Goffman's notion of face entails the self-image as manifested by the public perception of the individual. One has negative and positive face, both corresponding to the other in effect as the private enterprising and public approval-seeking self, respectively. Inherent in this model is the notion that face is constantly at risk, requiring politeness to decrease this risk. Thus, "doing face work" entails the ongoing negotiation of the self and one's face with respect to others' as conversations evolve and situations of interaction change.

Brown and Levinson's seminal work in Politeness includes an explanation of face-threatening acts, or FTA's. FTA's build on the notion of positive and negative face, founded upon principles of social distance, relative power or rank, and degree of imposition (1987, p. 74). Each of these principles plays a role in determining the relative position in society one is situated in with respect to his/her addressee. Engaging in politeness strategies avoids threatening the face of one's addressee. If one were careful to preserve an addressee's negative face, this may entail, for example prefacing a request with "I'm sorry to bother you, but…" which attends to preserving the negative face of the addressee, or the desire to be unimpeded. Positive face entails more of the various linguistic strategies one would undertake in order to be accepted, or to belong.

These principles are reminiscent of Leech's model of scales, where determining the value or severity of the FTA leads to how much "tact" is required to offset the FTA (1983, pp. 123-126). Leech's "tact" maxim includes a social distance scale which attends to the degree of familiarity between the speaker and hearer, but also a cost-benefit, optionality, indirectness, and authority scale. The social distance scale determines the degree of intimacy between speaker and hearer. The cost-benefit scale shows the cost or benefit of a particular act to speaker and hearer. The optionality scale relates to the choice a speaker or hearer is afforded by a particular act. The indirectness scale shows the degree to which the hearer must infer in order to obtain the speaker's intended meaning(s). And the authority scale shows the status of both speaker and hearer with respect to each other.

Non-western scholars have since argued that previous conceptions or theories of Politeness, including those of Brown and Levinson though ground-breaking, are not universal principles, further distinguishing the position of the self and face contingent on factors such as culture, gender, class, rank, status, and age in conversational interaction (Gu,1990; Ide, 1989). Although several factors influence face and politeness strategies across cultures, without the foundational work of earlier Politeness theories such as that of Brown and Levinson, the shift toward a more cross-cultural accounting of conversational interaction may not have been possible.

Similar to Politeness, but a separate theoretical contribution is the work of Grice. Maxims of communicative order are based on his Cooperative Principle, or the CP. The CP entails that those who enter into a conversation do so with the intent and expectation of mutual contribution to the extent required by a specific exchange (1989, p. 307). Observing the four maxims of communicative order ensures cooperation in a conversational exchange. Those four maxims are: Quality – being sincere and truthful, Quantity – giving enough information as required, but not a superfluous amount, Relation – contributing appropriate or relevant information or staying in topic, and Manner – being clear about your contribution and avoiding obfuscation. If a participant flouts one or more of the Gricean maxims, s/he may be considered uncooperative at worst, or s/he may generate implicatures, which require the hearer to exert significant effort to process the intended message. Grice's work serves as a basis for subsequent theorists when examining expectations and communicative norms of interaction. In the field of pragmatics however, the CP or more specific Gricean concerns are usually embedded within other theoretical frameworks, such as Politeness.

Theories of politic behavior (Watts et al., 2005) and Culpeper's (1996) Impoliteness prove more useful than previous Politeness theories to understand the strategies undertaken to afford entrance and membership in a speech community. Watts (2003) defines Politeness as two-fold: first-order politeness, which includes the tacit expectations of norms of behavior; and second-order politeness, which constitutes the theoretical umbrella for politic behavior, politeness, and cooperation. In other words, second-order politeness is the "technical term used in the pragmatic and sociolinguistic study of socio-communicative verbal interaction" (p. 30).

By contrast, "politic behavior" is described as "mutually shared forms of consideration for others" which may simply extend the cooperative and expected generalizations of previous theories. Watts et al. (2005) describe Politeness as maintaining "equilibrium of interpersonal relationships within social groups," akin to "politic behavior" (p. 43). Thus, if politeness is usually, as he claims, evaluated negatively, perhaps only through violations and their responses, one could delineate specific expectations of behavior.

He also warns against the tendency toward the universality of these pragmatic theories. He proposes to resolve the problem of this universality of "linguistic politeness" by two approaches within theoretical linguistics: the "typological," or ideal, approach and the "underlying principles," or actual approach (p. 43). The typological approach serves as the class of expected behaviors between interlocutors, while the underlying principles approach provides the theoretical description or conceptualization of politeness. Watts suggests that "politic behavior" is a more comprehensive explanation of social interaction than earlier theories such as Brown and Levinson's. "Hence, politic behavior, which is culturally determined and is 'generated' from underlying universal principles, is transformed into polite behavior under certain marked social conditions" (p. 57). Thus "politic behavior" is an extension of the cooperative politeness model to include those interactions which are not solely linguistic or realized when violated. The glaring similarity between politeness and politic behavior is that both theories remain housed in what is expected behavior, which is fundamentally variable cross-culturally.

Impoliteness, a more recent development in the field (Culpeper 1996), is salient for this project and more inclusive a framework within which to analyze the linguistic strategies in question. Culpeper describes two tiers of impoliteness, which are important to note in order to adequately use his term in this examination. First, positive impoliteness output strategies are those in which the interlocutor ignores or otherwise snubs the other. This is accomplished several ways according to Culpeper: ignoring, snubbing or otherwise dismissing the speaker, physically leaving the conversation, using forms of address or identity markers of a higher or lower status than deemed appropriate for the situation, using secretive or obscure language, or making the other person feel uncomfortable by using taboo words, epithets, or otherwise offensive language.

Second, negative impoliteness output strategies are those in which the interlocutor takes an active role in creating a hostile environment by frightening, condescending, ridiculing, invading physical space, or otherwise publicly offending the other. With this framework established, Culpeper suggests that these notions of what constitutes impolite behavior can serve as a catch-all for the interactions which do not correspond to, though modeled on, Brown and Levinson's positive and negative face (1987). Power differentials play an important role in impoliteness as well as in politeness strategies. Culpeper argues that if one has significant standing in the speech community or in the specific context of the exchange, he or she is more readily apt to acceptably engage in negative impoliteness output strategies in addition to positive ones.

Derek Bousfield (2008) documents his research of face-to-face interaction with respect to impoliteness as an alternative to Brown and Levinson and their assumption that most communicative acts are built on the cooperative model. He also criticizes Culpeper for the same offense that Brown and Levinson's critics have voiced of researching single exchanges which are removed from context and not ongoing discourse events. He warns that considering impoliteness in singular talk exchanges is limiting and such approaches are merely "research milestones." Instead of single exchanges of talk, he proposes investigations of "extended, real-life interactions" (p. 3). The data Bousfield analyzes are "conflictive, impolite illocutions" taken from television series (p. 7). Ultimately, Bousfield himself is caught in the dilemma of choosing constructed and perhaps scripted discourse, although extensive, by decontextualizing the interactions.

Pen community discourse is extensive and naturally occurring data that successfully evokes spoken language. Participants make several accommodations for this communication (written evoking speech) to occur, including manipulation of keyboard characters to emphasize points such as large font for evoking a raised voice, font color change for emphasis on a contradiction, and the use of quotations from previous posts to achieve the effect of interruption (see Table in Appendix A). Turn-taking behavior, since it is asynchronous, is constructed via use of quotation functions and visual spatial cues to affect a real-time exchange.

Pen threads exhibit what seems on the surface to be impolite, as some of these turn-taking efforts achieve what would be considered interruption in face-to-face exchanges. Whether Pen members are actively engaged in theoretical impoliteness for the explicit purpose of attacking a member's positive or negative face remains in question. The strategies employed in various threads of conversation for the purpose of breaking into the community or the attempt at becoming a member who is accepted as a member and who identifies with the community are apparent in threads through examples of topic shifting and *flaming*. These strategies include interruption (Bilmes, 1997; Murray, 1985; Schegloff, 2000), non-conventional turn-taking, and overt *flaming*. I have compared *flaming* on the Pen message boards to verbal dueling (LeBlanc, 2005). Culpeper (1996) explains that verbal dueling (Dundes et al., 1970) or signifying (Labov, 1972) is most often described as male-oriented and sexual in nature. "The effect is to reinforce in-group solidarity" (Culpeper 1996, p. 353). Sounding or signifying is also described as ritualized in nature and therefore rarely improvisational; comments that are considered signifying are "not interpreted as personal insults" (p. 353). This is not the case with Pen members and *flame war*s. Personal attacks are normative for *flame war*s, if not required to achieve the desired effect of either shunning the *flame*e or forcing the *flame*e to leave the forum. "Impoliteness behavior is not a marginal activity" (p. 349). On the Pen boards, being impolite is indeed normative behavior regardless of whether the speech event is marked as a *flame* or a face attack of some kind. These events are common and therefore not considered marginal activities. The "everyday" or phatic postings seldom appear impolite, yet they contain strategies which Culpeper would presumably deem impolite. The exchanges I examine here seem to fit the description of Culpeper's as exhibiting both positive impoliteness and negative impoliteness output strategies.

DATA AND DISCUSSION

Haugh (2003) posits that "if politeness is to arise, there must be some consensus about the social norms for that particular situation" (p. 400). Online communities, particularly at their inception, do not necessarily have established norms and politeness expectations; these are negotiated toward community-specific consensus through interaction. No precedent exists, hence guidelines to e-mail etiquette (Booher, 2001; Danet, 2001) and the situations may be similar to, but never completely mirror face-to-face or even informal letter-writing precedents set. Communicative competence becomes interdependent with community building.

This interdependence is embodied in Pen exchanges. An example from the archived Pen message boards exemplifies two kinds of topic shifting behavior, both for continuity and derailment, while showcasing the importance of building both community and participatory competence within it. Embedded in the exchange is also a salient aspect of what I call an attempt to "break in," that is break into both the community and the interaction. In the following exchange, members are sharing stories about their worst roommates. The topic of bad roommates remains the theme for several posts, and subsequent posts generally follow the previous one. If someone replies to a post that is not immediately prior, accommodations are made in the form of incorporating quoted posts and then writing directly beneath it so that when read, it appears as a direct response despite it being delayed with other posts appearing between them. When this occurs, the topic is not shifted. When the topic does shift is significant. Several posts subsequent to the first thread post, a new participant, P, writes the following, which is met with several responses by various members. P is attempting to gain solidarity with members by also suggesting ways of getting rid of a bad roommate. The first post (P1) is his offer. The second (P2) is a subsequent offer but from the same poster, P.

Each letter represents a different poster, assigned by the order in which they posted. The last quote is from the thread originator (A).

P1: Wwhen he's sleeping one night.. simply get some cement, mix it up inside the house (so its room temp) and then slowly (as not to wake him) cover him (in his bed) with the cement (that you just mixed) but do it quietly (and slowly) so that you dont wake him up(or he'll kill you) also bring a shovel with you (the one you mixed the cement with maybe?) and if he wakes up (from his sleep) then smash him in the head.
P2: THEN SELL HIM SOME WAERZ BUT DOANT GET CUAGHT BY THE COPZORZ OR YUO WIL GET ARRESETD LIEK ME!!!
Q: (don't forget the parentheses) (you idiot)
I: ok).(
R: **(.)(.)**
K: BOOBIES!! I like [picture of woman looking at her breasts that are moving side to side]!
A: Well, here's the latest scoop on the roommate saga:

Two mechanisms are in force here that merit discussion. The first is turn-taking behavior, evidenced in the last post from A. In order to re-direct the conversation topic back to bad roommates, poster A uses the discourse marker, "well," to signal a desired shift (Schiffrin, 1985 & 1987). This can be heard and seen in face-to-face interactions and can be considered similar in both usage and desired effect. The shift back to roommates is achieved, but what occurred prior to the re-direction of the thread topic is particularly of interest to online discourse. Poster Q shifts the topic from roommates, how terrible they are, and how to get rid of them to ridiculing poster P for ubiquitous parentheses, as he writes, "(don't forget the parentheses)" and "(you idiot)." At this moment, the topic is no longer roommates. Then poster I publicly ridicules poster Q for being so severe and posts backwards parentheses, perhaps in defense of P. R then posts "(.)(.)," tying in the visual parentheses with a Pen topic shifting discourse marker, which in this community and in many others represents female breasts but specifically on Pen threads, encoded in "(.)(.)" is the message that the topic is going to or is intended to shift. This type of post serves as an example of one of the covert categories (Whorf, 1956) of behavior - topic shifting discourse markers deemed appropriate by the community. From this point, the thread may either continue off topic and shift several times, never returning to the original or it could, with other off-topic posts, eventually return to the original topic. This particular thread does return to the original topic seamlessly. The thread continues for several pages and the topic remains roommates. Two important events occurred in this thread which are characteristic of this community's interactional behavior: turn-taking and impoliteness. The turn-taking behavior in above quoted section included a derailment and a re-direction. The impoliteness is subtle and does not develop into a full-blown *flame war*, but it does achieve the desired effect of snubbing poster P.

Poster P is attempting to break in to the discourse, but the reactions of other participants reveals that his or her attempt is unwelcome. S/he attempts to use *leet speak* (see Table in Appendix A) in order to achieve solidarity, but the response is not warm. Pen members code-switch to *leet speak* when they are asserting their prowess in technological contexts or when they are positioning themselves as more powerful members of the community, usually in the form of mocking another member's inability to, for example, *mod* their own *box*. Poster Q is a long-time member and part of the administrative team, so he is considered a powerful authority in the community, information to which P may not be privy as a *newbie*. Poster P does not post again after this instance. Poster Q engaged in a negative impoliteness strategy (Culpeper, 1996) by condescending and ridiculing poster P. The desired effect of having the poster leave the forum was achieved. In many instances, someone who is new to the community and who tries to participate on a thread is not met with a negative impoliteness strategy, but more often with a positive strategy, usually in the form of ignoring or not giving the poster an *avatar* (see Appendix A) which can be subsumed under Culpeper's strategies of using inappropriate identity markers and ignoring or snubbing.

Tangential to the argument set forth in this paper, but salient for later discussion is that this community is male-dominant, both in population and in interaction. de Oliveira (2003) relays conclusions from her data with an online male-dominated community and found similar results. "In the absence of official rules and censorship, the members themselves set the boundaries for acceptable behavior, and the participants of both genders play a role in negotiating the norms of interaction considered appropriate" (p. 15). She found that males in her particularly studied community more often took roles of "identifying transgressions and meting out interactional punishment (resulting in a loss of 'face' for the transgressors)" (p. 16). This is precisely what occurs in the above Pen thread.

Another example of topic shifting and breaking into the community follows. A begins a new thread with the following post and subsequent posts are shown below:

A: new dictionary coming soon!! is anyone else jerking off to this? ok, I'll be quiet now.
B: ....no, just you. I LUBV J00 [A]!!
C: ☹
I work at a McJob:\
D: It's not polite to swear
E: [B] and [A] need to have teh lezb0 sex s00n. or just kiss...
F: quote: originally posted by [E]: [B] and [A] need to have teh lezb0 sex s00n. or just kiss...
The thing is, I get the strange feeling that if that ever were to happen, you wouldn't be invited
B: quote:
Originally posted by [E]: [B] and [A] need to have teh lezb0 sex s00n. or just kiss...
What? I lubv (almost) everybody here! Not just [A]!
G: quote:
Originally posted by [F]: The thing is, I get the strange feeling that if that ever were to happen, you wouldn't be
invited
BRING A CAMERA!
H: quote:
Originally posted by [G]: BRING A CAMERA!
I love [G]s simple solutions. Kickass! Problem = solved! Now.. OMFG! PICS?

(discourse continues)

Numerous strategies are invoked in this thread, prominently including topic shifting and breaking in. Poster A, a female, attempts to fit into the community by using language characteristic of the community, "is anyone else jerking off to this?" followed by a retraction of sorts, "ok, I'll be quiet now," as if to signal either 1) subordinance in the community as a female and a newer member, or 2) acknowledgment of her awareness of a violation of some covert category. The phrase, "is anyone else jerking off to this" is usually employed to incite an affinity for one of the male-dominant community's presumed shared interests, seeking solidarity. She is met, however, with both positive and negative impoliteness strategies. One possible reason for the reaction to her post is that she is female, and the community consists primarily of males. Important to note here is that poster B is also a female, whereby posting the often-used "no, just you" when the desired effect is to snub the poster's contents and/or character achieves what many males in the community can with the same kind of post. This can be interpreted as a positive impoliteness output strategy, as A is not being insulted, but dismissed. She softens this impolite strategy, however by adding “I LUBV JOO,” which signals to members that she is most likely female and therefore does not often engage in impolite strategies in the community. It can also serve as a marker of solidarity with the other female poster while simultaneously attempting to maintain her position in the community as impolite.

The next three posts are by male members of the community and all three are shifting away from poster A’s proposed topic of a new dictionary, which she assumed would be of interest to the members. Poster B again chimes in at this point in order to maintain that she is female, but a member nonetheless. The male posters appearing in this thread are long-time Pen members and are known in the community for their frequent sexual remarks, usually misogynistic in nature. Using remarks like the ones seen above are efforts on their parts to maintain dominance within the community hierarchy and to snub poster A (negative impoliteness output) for trying to break into the community (and into the thread with what she assumed would be a topic of interest to them). Had a male posted something like “are you jerking off to this?” he would usually get responses like “yes” or posts that include images of an animated file of a male stick figure masturbating. This would cultivate solidarity, whereas in this case, the female is snubbed and the topic is successfully and permanently shifted away from the new dictionary.

The third example from the corpus of data contains several strategies and events over an extended discourse. The topic is derailed and re-directed, a *flame war* is incited, and positive and negative impoliteness output strategies are evident. The hierarchy of membership within the community remains vague, but there are instances where an outsider can delineate, by the content and nature of the post, the power differential in force. The first post is an attempt to reply to an article written by a longtime Pen member, D, which appeared on the homepage of the website. Poster A, another established member of the community, is unhappy about Poster D’s grammar (an acceptable topic for discourse in the community) and less concerned with the content of the mainpage post, a section of which he posts to begin the thread. Thus, the discourse in this thread quickly develops into impoliteness strategy after another, the first one being publicly attacking D’s grammar and perhaps his character, exhibiting negative impoliteness output strategies.

A: quote:

all of this is well and good, and helps me to focus my energy on projects which are likely to better the collective self portrait all of us dorian gays paint of humanity; *instead of focusing it on bellyaching about having not even a prospect for a girlfriend*

*Okay, I’m less than enlightened here. Does that sentence mean what it looks like it means? ‘Cause it looks like you’re saying you, and all of us, are “dorian gays” - whatever a “dorian gay” is. And considering one of the links in those words was to someplace called “gaystation”, I’m pretty sure I get enough of the idea to know VERY well I’m not one. I have a sneaking suspicion this wasn’t quite what you meant to say, but f*** if I could manage to parse that sentence any other way. Clue me in here, willya?*

B: “I’m not gay. I didn’t ... gay.”
C1: wang can wang
C2: wangismightier.com
D: it is a play on words of the title of a novel by oscar wilde: the picture of dorian gray. i was saying that people’s unwillingness to

internalize the ugliness, to love the beauty as well as the ugliness of humanity while earnestly trying to better humanity is, in short, gay. and that we all collectively paint the ugly picture of humanity we see before us. thus, we are all dorian gays.

The first posts in this thread set the tone of the discourse at hand. Several subsequent contributions by both old (C, G, H, I) and newer members (B, E, F) contribute similar posts all with the thesis being that they do not enjoy reading D's posts. Poster A returns to post more *flame*-inciting images which link to a website where one can buy the book, *Many Faces Of Homosexuality: Anthropological Approaches To Homosexual Behavior*, and adds:

A: I have no idea what sort of odd internal dialogue led you to progress from the first face to the last over a three hour period: all I know is it had nothing to do with me, since I had no more contact with you elsewhere than I did here. Regarding your belabored protests, I was actually quite familiar with the premise of The Picture Of Dorian Gray. This familiarity, however, was no adequate preparation for the Sisyphean labors inherent in parsing your tortured syntax. In short, my advice to you is this: eschew obfuscation. </highbrow>

E, A first-time poster[1], joins in to support the *flame*.

E: To tell you the truth [D], I skip most of your posts. They are so damn hard to read.

Then one new member, or potentially new member, posts,

F: GODF***INGDAMNIT [D] GO AWAY HOW MANY TIMES DO YOU HAVE TO BE TOLD?? [D]=BORING. LIKE HARDCORE BORING. I LIKE THE NON-PRETENTIOUS ARTISTS BIT. DOES THAT INCLUDE YOU?

Attempting to initiate a *flame war* and thereby engaging in negative impoliteness, F uses all capital letters and inflammatory language similar to what is contained in and characteristic of many *flame war* threads on the Pen boards. This attempt to *flame* D, however is unsuccessful because subsequent posts, while criticizing D, exemplify positive impoliteness output strategies against Poster F but do not conform to the characteristic *flame war*. S/he is largely ignored by subsequent participants, while the conversation continues on the topic of why members do not read Poster D's writing. The lack of a desired response to this attempted initiation of a *flame war* with a long-time Pen member could also be attributed to the power differential in the community. Poster F is not yet accepted as a member of the community, and as seen in earlier examples from the above referenced threads, s/he posts in a manner that s/he assumes correlates with covertly organized rules of *flame war* engagement, but falls short of true competence for acceptability into the community. Several posts follow, ignoring F completely, thereby refusing to engage in an exchange of any kind with him/her. However, other members with solidarity engage in a heated discussion that is not yet overtly labeled a *flame*, but the language, tone, and debate all point to what usually constitutes a *flame war*. D responds to many criticisms of his writing. Toward the end of the back-and-forth between A and D's heated discussion over parsing grammar, A writes:

A: Okay [D], let's take this one slow:

1. Yes, you have it so right. I fear your mighty p3n15 will violate my tender anus, therefore I attack you. Uh-huh. How "insightful" of you. (Was that an epiphany?)
2. The internal dialogue was whatever prompted you to make three separate posts over the course of three hours, with no input from anyone else, which changed drastically in tone as time went by.

3. Look *real f***ing hard* at this very page and see where you can find the very three faces that I posted. Hint: they're in the same order I posted them. Another hint: they're immediately to the right of the letters "[Poster D's name spelled in capital letters]" and immediately to the left of the word "posted." Clued in yet?
4. You don't "think in broad strokes", you trip over a ladder and spill 5 gallons of semi-gloss latex on the carpet, man. It's messy, really.
5. The "Sisyphean labor" is continuing to attempt to communicate with your befuddled ass. Jesus man, snap out of the fog and pay attention - you couldn't even figure out where the *faces* remark came from and *you posted them!?*

D responds with:

D: [addresses Poster A]: ok, if you need to take it slow... (i heard you like it that way)

1. ok, yer right, yer *not* a homophobe.
2. the posts did not change drastically in tone. or if they did, you've failed to point out how.
3. and i thought maybe you meant something deeper than that i used three different message icons. oooh, did that throw you off?
4. and i do think in broad strokes. it's a gemini trait. i sometimes miss the trees for the forest. but i see that you just wanted to twist that into an insult. you had nothing of value to say. or no, maybe you wanted to inform me about how my brain works?
5. and i like how you skirted addressing the flaw i exposed in your analogy. if you must continue this attack, let's do it in email, huh?

The post immediately following, written by A himself, is:

A: That dog in *Mad About You* rules

There is, at this point, no overt mention of a *flame*. The next poster, however, in re-directing the topic back to why no one reads Poster D's writing, introduces the notion and the explicit term, *flame war*.

G: But there's so many people and now an established target... I much prefer public *flame*wars But then I'm a homophobic, non-link-clicking, non-understanding, sarcasm-missing, non-email-using, semi-literate, redneck-named, exagerating asshole.... ...who just happens to have a 10 inch cock. Oh, and regarding this:

quote:

Originally posted by [D]: *people can print my posts to wipe their ass with them as far as i care.*

You have to care at least a little. Otherwise you wouldn't be posting the things to begin with. You sure as hell wouldn't be getting defensive if you didn't care. The trick is to learn how to deal with criticism and flames. You dont start a flamewar and then say "lets continue this where I wont be so embarrassed anymore". The cats out of the bag. You hang in to the end, give up, or ignore it. I tend to hang on to the bitter end. I also frequently lose.

The thread is now populated with several members who are each vying for the opportunity to claim his/her dominance in the community while still defending Poster D against the new potential member's attempted *flame* but still vehemently criticizing his posts' lack of interest. Instances of both positive and negative impoliteness output strategies are apparent, concurrent with topic shifting at nearly every new post: reverting to covertly ignoring Poster F's attempt to *flame* D, or making light of the situation to avoid a *flame war*, or re-directing the topic to criticism of the grammar and content of Poster D's original post.

H: sweet jeebus. in the time it took me to make a semicoherent post, this escalated from a minor scuffle into a near *flame war*. i just can't keep up. now you f***ers see why i avoid chat.

Eventually, the thread is derailed and remains off topic, ending with discussions of spamming (see Table for definition).

This example from the Pen data serves to highlight three important points:

1. A *flame war*, whether it ever eventually took place, was not picked up from F's attempt and s/he was ignored through positive impoliteness output strategies.
2. Criticism of D is indeed picked up; members engage in arguing with D but not engaging in the way F intended them to.
3. G's meta-commentary includes an acknowledgment of F's infelicitous *flame war* attempt and receipt and explication of some of the covert categories and consequences of *flame war* etiquette reveals the Pen community knowledge gleaned only through experience in the community itself.

FUTURE TRENDS

Further research is merited for uncovering the mechanisms involved in building and maintaining virtual speech communities. More holistic pragmatic theories have the potential to enhance the analysis of discourse in online communities, as what is shared and what is expected are mostly known only to members, akin to secret societies. Qualitatively, the interactions are useful in highlighting which members are more often snubbed or *flame*d, which covert categories must be adhered to in order to maintain solidarity, and what accepted forms of interactions are expected. Quantitatively, the ratio of male to female members is of great interest, as the second thread exemplifies what occurs when a female tries to break into a male-dominated community using what she assumes to be male-oriented speech salient to that community. The responses she incites are also noteworthy, from both male and female members.

Alternative approaches in addition to discourse analysis via impoliteness strategies would be fruitful whereby the researcher conducts participant observation in several diverse virtual speech communities to bring insider knowledge to the forefront of the research and to supplement this study[2]. A larger corpus of several diverse virtual speech communities in future research will provide more understanding of online communicative interaction, linguistic mechanisms and virtual community building.

CONCLUSION

Communication "breakdown" (Hutchby, 1998 & 2001; Sacks & Jefferson, 1992; Schegloff, 1968 & 2000) ironically highlights the conversational coherence in the community. In the second thread, the "breakdown" was the snubbing of the female poster. What ensued was a topic shift toward sex and condescension against the original poster. These instances illuminate the unwritten normative behavior expected on the Pen message boards. In addition to accommodations for the lack of a shared physical space by using orthographic conventions via the computer keyboard, members of the Pen community identity themselves as *leet*. Part of being *leet* entails communicative competence specific to this community, whereby posters are recognized as members only when they successfully break into the community by employing appropriate strategies of covertly approved topics, fluency in *leet speak* which includes knowing when to code switch to that register, and maintaining impolite discourse even when engaging in "phatic communion" (Malinowski, 1923).

As seen in the above examples of topic shifting and mild *flaming* in Pen threads of discourse, impoliteness output strategies, both positive and negative, are evident in use. These threads serve as typical exchanges on the Pen message boards, which therefore provide a starting point for further analysis of online conversational behavior. Covert categories and competence as members in the community are only realized when those covert norms are violated, where instances of breakdown, or at least conflict occur. When attempting to "break into" the community, potential Pen members are not always aware of the expected behavior, but learn through the enculturation of interaction with established members.

The concept of power and the use of power in conversational interaction is integral to the abovementioned theories of politeness and impoliteness, and a treatment of such an important aspect of conversational interaction merits a much more extensive discussion for later projects. Such projects could include discussion concerning, with regard to community building, how newer members or first time posters mitigate power which already exists in a community through the use of strategies we have seen in the above examples.

As the latter example of a *flame* thread illustrates, impoliteness is in force whether negative (more overt or marked responses like those of Poster F or G) or positive (majority of members completely ignoring Poster F). Whether impoliteness is blatant to someone outside of the community or not detected by someone who attempts to break into the community by adhering to what s/he assumes are the appropriate avenues, one can appreciate the complexity of negotiating membership into a community such as this one.

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KEY TERMS AND DEFINITIONS

Avatar: Under a poster's name, the web administrator will post an image file or a phrase to signal membership status. Non-members are marginalized by their lacking a unique *avatar*.

Box: Computer, specifically, the processor, hard drive, RAM, and their necessary components like a cooling fan and power supply.

Flame (Flame War): Heated discourse exchange involving two or more participants; equivalent to verbal argument heightened to the level of fighting.

Leet Speak: A specialized language indicative of virtual communities who share interests in technology. Derived from the words 'elite speech' which members of Pen use often to either maintain solidarity or to mock someone who tries to use *leet speak* to fit in. The above table highlights some of the most commonly occurring *leet speak* manifestations.

Leetness: (deemed by *leet speak*ers) the status of being *leet*; in essence, being able to communicate competently in *leet* settings.

Lurking: Visiting a website but never participating; watching the interaction as strict observer.

Mod: Augment or ameliorate; in this case, upgrading the components in one's computer to make it run faster and cooler (as with a car).

Newbie: Someone who is not yet afforded full membership in a community; a newcomer.

ENDNOTES

1 Although I am labeling first-time posters as "new" members, a classification problem arises when older members re-register on the website under different, thereby shirking their member status and masquerading as *newbies*, but are in fact, hiding their impoliteness strategies behind the veil of incompetence or inexperience. Another explanation for a post such as E's is that he is indeed a first-time poster who has simply been *lurking* for some time.

2 See LeBlanc (2005) for a more in-depth explanation of the community, its demographics, covert categories, and most importantly ethical and methodological concerns and implications.

APPENDIX A

Table 1. Leet speak orthographic conventions (Pen community identity markers)

TECHNIQUES	*LEET* ORTHOGRAPHIC CONVENTIONS	GLOSS
Alternative spellings of words	The Pr0n 0wn3d Pwnd	The pornography owned = beaten pwned = beaten
Acronyms	DYJGTIT?!?!?@?!?@!?@!!@ (read: dIʤə gIt It) AOLer speak g2g or GTG	Did You Just Get The Internet Today? Non-*leet* CMC Get Together
Font change & intentional misspelling(emphatic)	**YUO ARE TEH FUNNAY, SAR!**	You are funny!
Color change (emphatic)	**OWN3D!** **PWNT!**	You lose! (you are owned) You lose!
Techie terminology	Modded box	Upgraded computer
Repetition (punctuation or phrases)	?!?@?!?@!?@!@! Posting the same picture (goatse) throughout one thread I love boobies (posted repeatedly in a thread)	Emphasis spamming/trolling thread derailment
Self-labeled or member-labeled roles	Grammar nazi Topic nazi	One who corrects or mocks grammar One who re-focuses or derails a thread
Censorship	**** c4k3	cake (the only taboo word; auto-replaced by asterisks) Subversive alternate spelling to avoid automatic asterisk replacement
Emoticons (smileys)	(.)(.) <3 I <3 (.)(.)	Boobies Heart / love I love boobies

Chapter 35
The *YouTubification* of Politics, Impoliteness and Polarization

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ABSTRACT

This aim of this chapter is to relate deindividuation to impoliteness and impoliteness to polarization. To that effect, sequences extracted from the comments section to videoclips posted on YouTube and related to the 2008 US primaries and presidential elections were subjected to a quantitative and a qualitative analysis. The analysis sought to confirm the hypothesis that polarization, within this context, would be related to an increase in positive impoliteness strategies. Also, this chapter raises important questions regarding the applicability of current theories of impoliteness to the study of polyloguic, intergroup communication as most of their tenets were developed to tackle dyadic, interpersonal communication. Impoliteness is seen as multifunctional within the context analyzed and, contrary to general belief, it is argued that it can be also constitutive, rather than just disruptive, of communal life.

INTRODUCTION

The goal of this paper is to identify recurrent patterns of discourse and link them to polarization. Polarization is here defined, following Lee (2007, p. 385) as the trend found in individuals, after a group discussion, "… to endorse a more extreme position in the direction already favored by the group". To that effect, sequences of comments posted as responses to YouTube videoclips related to the US 2008 primaries and presidential elections are analyzed. In these sequences, participants discussed the merits of a given candidate/policy/ideology/party. Some of the participants involved were pro the issue at hand, others were against it. No agreement or consensus was reached within the specific sequence. Furthermore, all sequences included in the corpus contain language that can be deemed face-threatening, i.e. impolite within this context. Face and impoliteness are not unproblematic concepts. Therefore, a section of the paper will be devoted to a discussion of how they are here understood.

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Although polarization is currently receiving significant attention, both within academia and the American press, most of the scholarly works reviewed do not provide a description of how participants "do" polarization, i.e. what type of pragmalinguistic resources are used to convey polarized positions. The main hypothesis of this paper is that polarization can be related to an increase in impoliteness strategies, more specifically those strategies conveying positive impoliteness. With this in mind, in the analysis of the data, patterns are sought at the micro-level through a close study of the impoliteness strategies used to realize the conversational moves. Then, any patterns at the macro level or lines of argumentation recurrently used in the corpus and related to polarization are sought, identified and described.

The study of IM-politeness in deindividuated, on-line contents has implications for theories of IM-politeness. It shows that impoliteness is not necessarily a way to destabilize relationships (Kienpointner 2008), but also may be used to construct communal life (Garcés-Conejos Blitvich 2009, 2010). In the context of mediated polylogues, as the one under study, impoliteness is multifunctional: it is used against the out-group to create a sense of "us versus them" by making their attributes undesirable, and to heighten a sense of membership in the in-group. Also, this paper argues that IM-politeness theories need to be extended to account for intergroup communication, i.e. instances in which social identity, versus individual identity, is salient.

YOUTUBE AND AMERICAN POLITICS

As indicated above, the sequences that make up the corpus on which the present study is based were extracted from the comments to videos posted on YouTube. YouTube was launched on February 15, 2005 as a personal video sharing service. Today, it has become an "entertainment destination" where people watch more than 100 million videos on the site daily (YouTube Fact Sheet). Nielsen Net Ratings reports that YouTube has almost 20 million unique users per month. With a 70% of users claiming to be from the USA (Lange 2007), YouTube's impact on US politics was first noticed during the congress electoral campaign of 2006. However, the 2008 primaries and presidential elections have witnessed the "YouTubification" of politics. (May 2008).

Grove (2008: 28) reports that "…each of the 16 one time presidential candidates had YouTube channels; seven announced their candidacies on YouTube. Their staffs uploaded thousands of videos that were viewed tens of millions of times." Also, advocacy groups, non-profit organizations and ordinary citizens actively participated in the electoral conversation by posing their messages on YouTube. Furthermore, news organizations launched YouTube channels, among others, the Associated Press, New York Times, the BBC, and The Wall Street Journal. Grove points out that YouTube provides a useful sounding board for politicians as 20% of YouTube users are over age 55; the same percentage who is under 18, which means that the YouTube audience "…roughly mirrors the national population" (Grove ibid, p. 29). Moreover, crucially for the purposes of this paper, YouTube has been described as the world's largest town hall for political debate, where voters connect with other voters, candidates and the media no longer constrained by conventional barriers of time and space.

Public forums, such as YouTube, where citizens engage in discussions about the public good, constitute instances of public discourse. As defined by Sellers (2004, p.15): "Public discourse … regards public policy, as distinguished from private discourse among citizens seeking to develop their own private friendships and interests". Sellers states that civility constitutes the standard of behavior that should govern public discourse.

Thus, specific forms of incivility, such as ideologically supported hostility to others, violate the basic premises of public discourse.

In view of what many perceive as an increase in incivility or impoliteness in on-line forums and cable TV channels (Garcés-Conejos Blitvich 2009, 2010), it has been argued that the new technologies do not foster public dialogue and democracy, as their advocates expected they would, but polarization of ideas. In the US context, on-line incivility has been related both to the medium – mostly the anonymity if affords participants– and to the polarization currently experienced by American society Tannen (1998). It would seem, as it is evidenced in the sequences selected for analysis, that YouTube has turned into another of the theaters where the "Culture Wars" are being waged. The "Culture Wars" metaphor has long been used to claim that political conflict within the USA is due to a conflict between "traditional" and "progressive" values.

DEINDIVIDUATION AND ONLINE LINGUISTIC BEHAVIOR

Tannen (1999) saw on-line anonymity as one of the causes of the *agonism* experienced by contemporary American culture. Tannen (ibid, p. 8) defines agonism as "…automatic warlike stance – not the literal opposition of fighting against an attacker or the unavoidable opposition that arises organically in response to conflicting ideas or actions. An agonistic action, to me, is a kind of programmed contentiousness – a prepatterned, unthinking use of fighting to accomplish goals that do not necessarily require it".

Many other theorists have speculated on the influence of the medium on verbal behavior in computer mediated communication (CMC henceforth). Social presence theory (Short et al 1976) argues that the social impact of a communication medium depends on the social presence it affords communicators. Text only forms of interaction are viewed as less social and thus less encouraging of social influence. Social presence theory assumes that a decline in presence, as the conversational partner is de-individuated, may lead to anti-social behavior. Media richness theory (Daft & Lengel 1986) posits that the quantity of information communicated fluctuates with respect to a medium's richness. According to this theory, the main objectives of communication are resolving ambiguity and diminishing uncertainty. Depending on how restricted a medium's capacity is, it may be able to manage less uncertainty and equivocality. Therefore, the richness of the medium should match a specific task so as to avoid over simplification or complication. The Hyperpersonal model (Walther 1996), on the other hand, proposes that CMC interaction can reach more socially desirable levels than face to face communication due to its lower bandwidth. The partial cues allowed by visual anonymity can be used strategically. Also, asynchronicity promotes the selective construction of messages, and provides individuals with the time to plan, compose and revise message structure and content, as well as to decide when and how much to self-disclose and to carefully arrange message exchange.

The Social Model of Deindividuation Phenomena (SIDE) (Reicher et al 1995) takes a different perspective and argues that traditional models of deindividuation are based on individualistic views of the self, and do not take into consideration the fact that deindividuation affects the cognitive salience of social identity. Thus, deindividuated contexts are conducive to individuals constructing themselves mostly as members of a relevant social category, i.e. a certain social or collective identity. This is especially enhanced in the face of out-group opposition, as it may lead to polarization.

Although SIDE's postulates, like all other theories or models of deindividuation, have been questioned (see Taylor & McDonald 2002; Walther 2007), they have laid the foundation for many interesting studies that shed light on the relationship between deindividuation and group polarization. Lee (2006, 2007) applied the tenets of the SIDE to a study of how deindividuation influences group polarization – i.e. individuals, after group discussion; tend to endorse a more extreme position in the direction favored by the group - in CMC. The results of the study showed how the lack of individuating cues enhanced group cohesiveness and prompted individuals to polarize their position in the direction of group norms. Lee (2007) argues that these results have important implications for understanding the nature of political discourse on the Internet. In comments to blogs, to video clips, such as the ones under study, or chat rooms, participants tend to remain anonymous with very little, if any, personal information shared[1]. Also, they get exposed to arguments supporting both sides of an issue, which likely increases the contrast between the in/out group perspectives, leading to polarization of opinions by adhering to the in-group's positions and distancing themselves from those of the out-group's. This, unfortunately, is conducive to amplifying "…the division between social groups holding different views, rather than serve as a tool for building public consensus through the exchange of reasoned discourse" (p.399).

Lee's conclusions are insightful. However, her study does not include a description of how participants "do" polarization. In other words, what pragmalinguistic devices are used to cause and express polarization. Also, as Lange (2006) convincingly argues, Lee's, as most studies on deindividuation, does not take into consideration the fact that the way in which polarization is created, mostly through the type of impolite or aggressive on-line behavior which Herring (1994) referred to as flames, may also carry out other important social purposes. In other words, impolite on-line behavior is multifunctional. Lange (2006) shows how flames can be used to reduce anonymity. In my corpus, impolite behavior is seen as performing a double function: on the one hand, it is used to threaten the members of the out-group's face and show their attributes as non-desirable. On the other, it creates a sense of *us versus them*, which enhances in-group solidarity. It is to the multifunctionality of impoliteness within this context that I now turn.

IMPOLITENESS AND DEINDIVIDUATED CMC

The main hypothesis of this paper is that polarization in this CMC environment will be indexed through the use of impoliteness strategies. More specifically, polarization will be reflected by an increase in the use of impoliteness to threaten the positive face of participants.

Regarding the concept of face, most work on (im)politeness has traditionally applied Brown and Levinson's reformulation of this concept. Brown and Levinson's view of face has been widely criticized both for being Anglo-centric, thus failing to capture specific notions of face prevalent in, among others, Asian cultures (Scollon and Scollon 2001), and also for being individualistically and cognitively focused (Bargiela-Chiappini 2003, p. 1463). Furthermore, other scholars (Thomas 1995; Culpeper et al 2003, Bousfield 2007, 2008) have questioned Brown and Levinson's negative/positive face dichotomy arguing that it is difficult to find instances where just one type of face is threatened by a specific act.

Recent approaches and reevaluations of face (Arundale 2006, 2007; Locher & Watts 2005) have revived Goffman's conceptualization of face as discursively constructed in interaction. For example, Arundale's (2006) approach to face is relational and interactional. Face is viewed as an "emergent property of relationships" (p. 201), and "…as an interpreting that a participant forms regarding "persons-in-relationship-to-other-persons" (p. 202). Thus, the distinction between "self-face" and "other-face" can no longer hold as self and other are dialectally linked and define each other in communication. Locher and Watts (2005, p. 12) also view face as discursively constructed and socially attributed and argue that any individual may be attributed a potentially infinite number of faces for the duration of different kinds of performance.

Whereas these new approaches to face certainly provide a much needed revision of the concept, they still base their conceptualization on "individual"–versus collective- face, face-to-face communication and dyadic interaction (but see Spencer-Oatey 2002). As I argue below, this poses a problem for the application of their tenets to deindividuated, polyloguic, online environments such as the one under analysis. Also, I view positive and negative aspects of face as continuum, rather than a dichotomy, and agree that face threatening acts can target both. However, I think that, whereas both negative and positive face are always present, one of them becomes more prominent as the interaction unfolds or in different contexts, as is the case with positive face needs in the case here under study. Furthermore, it would seem that defining positive face *a la* Brown and Levinson here does not pose a problem, as it would in other contexts, since all the participants in my corpus are Americans[2], and thus Anglo-westerners.

Positive face needs, according to Brown & Levinson (1987, p.70), include the desire by the hearer to be the "same" as the speaker, with in-group rights and duties and expectations of reciprocity. On the other hand, Culpeper (2005, p. 41) defines positive impoliteness as the use strategies designed to damage the addressee's positive face needs. By using positive impoliteness, participants can dissociate themselves from the out-group, seek and express disagreement, and call others names that mark them negatively.

However, as explained by SIDE, deindividuation affects the presentation of self. Participants do not engage in interaction as "individuals" as they remain, for the most part, anonymous. In this situation, social identity becomes salient. This has fundamental implications for face – Goffman (1959)– and threats to face – Brown & Levinson (1987) – will not necessarily be addressed to individual face, but to collective face: i.e. they will be directed towards an individual in his/her capacity of member of a certain group. Thus, in these instances, we are dealing not with interpersonal, but with intergroup communication.

According to Gudykunst & Ting-Toomey (1988, p. 23) interpersonal communication occurs when predictions are made using psychological data. When cultural and/or sociological data are used to make predictions, intergroup communication occurs. Belonging to certain groups, performing certain roles is part of social identity – "that part of an individual's self-concept which derives from his/her knowledge of his/her membership in a social group (or groups) together with the value and emotional significance attached to that membership" (Tajfel 1978, p. 63 cited in Gudykunst & Toomey 1988, p. 24). Thus, when social – not personal – identity predominates, intergroup communication occurs. However, as Gudykunst & Ting-Tooney indicate, it is impossible to completely separate interpersonal from intergroup communication.

This has implications for IM-politeness theories. First, most of these approaches are devised to account for interpersonal rather than intergroup communication. Second, these approaches take the dyad, and face-to-face communication as the bases of their analysis. In a deindividuated CMC environment, where individual traits are obscured and identity is constructed on the basis of (dis) affiliation with a particular group, intergroup communication ensues, which implies that face attributes will be extracted from characteristics associated with that group. Threats to face are, in part, threats to what that collective stands for, as they are launched against an individual in his/her capacity as member of that particular group.

Another implication for IM-politeness theories is that the sequences here analyzed are not dyadic. Marcoccia (2004) described them as on-line polylogues, interactions between three or more individuals (Kerbrat-Orecchioni 2004). In the context of un-mediated polylogues, impoliteness can be strategically used to create coalitions among some participants. (Bruxelles & Kerbrat-Orecchioni 2004; Garcés-Conejos Blitvich 2009, 2010): what may be assessed as impolite discourse by one of the participants may be seen – or intended – as polite for others involved (Kienpointner 1997). This multifunctionality of impoliteness within polylogues could help resolve what Culpeper (2008) sees as a problem in most accounts of politeness: the fact that they focus on utterances with single functions, single speakers/addressees – ignoring multi-functionality and the complexity of discourse situations.

It will also be argued that in situations, such as the one under study, impoliteness should not be seen just as disruptive, but as constitutive of communal life (Garcés-Conejos Blitvich 2009, forthcoming), contrary to what is argued by Kienpointner (2008)[3]. By opposing and disassociating themselves from the out-group, the members of the in-group reinforce group membership. Whereas positive politeness creates a sense of "*weness*", impoliteness, more specifically positive impoliteness, creates a sense of "*us versus them*", which fits in well with conflict and polarization.

IS IT REALLY IMPOLITENESS?

Lange (2006) cautioned that one of the problems with the analysis of on-line aggressive behavior is that is deemed so by outsiders. Participants, were they to be asked, may not agree with the analyst's assessments. Her comment falls in line with the philosophy behind the new approaches to the study of im-politeness.

A major focus of the recent approaches to the study of (im)politeness is to target first order politeness (politeness1), i.e. participants' assessments of discourse as (im)polite, (see Locher & Watts 2005; Mills 2003; Watts 2003), rather than second order politeness (politeness2), i.e. the analyst's assessments of a given discourse as politic[4], polite, impolite grounded in pragmatic theory – traditionally Brown & Levinson's model (1987). How do participants immersed in discourse evaluate behavior as politic, polite, impolite etc.? Locher & Watts (2005: 29) argue that "…individuals evaluate certain utterances as polite against the background of their own *habitus* or, to put it another way, against the structures of expectations evoked within the frame of the interaction". In other words, evaluations of (im)politeness are performed on a case by case basis, but are guided by expectations of what is appropriate.

Post-modern or discursive approaches have been evaluated critically (see Terkourafi 2005; Haugh 2007). One of the critiques has to do with the fact that restricting the analysis of IM-politeness to situations in which the analyst is also a participant also limits significantly the demographics represented in politeness research (Mullany 2005, p. 294). Haugh (2007) argues for an interactional approach (Arundale 2006) to the study of IM-politeness and claims that the analyst, even if not directly involved, can identify instances of IM-politeness that emerge through interaction by either identifying explicit IM-politeness evaluations made by the participants themselves in the course of a given interaction – which, as Haugh points out, does not happen frequently-or more often"…through the reciprocation of concern evident in the adjacent placement of expressions of concern relevant to the norms invoked in that particular interaction" (Haugh ibid, p. 512).

In my corpus, the second situation described by Haugh (2007) – IM-politeness evaluations of participants can be inferred from the content/form of their responses – is certainly the most common one. As noted by Tannen (1999), participants' metalinguistic stance in regards to what constitutes proper ways of social interaction can be often be detected in online conversations. Explicit evaluations of IM-politeness are less frequent in the corpus, but they do occur. Often, especially in cases of impoliteness evaluations, impolite behavior is assessed as a characteristic of the out-group.

Furthermore, I would strongly argue that in cases of intergroup, rather than interpersonal communication, such as the one under analysis, where predictions and assessments are made on the basis of social or cultural categories, not psychological, the analyst can assess a given linguistic behavior as IM-polite, politic, provided his/her analysis stems from an emic perspective, although s/he is not directly involved in the interaction.

It is necessary, at this stage, to define what is specifically understood as impoliteness here.

Impoliteness phenomena have received significantly less attention than manifestations of politeness. However, both politeness and impoliteness have proven difficult to define (Lakoff 2005). Recent conceptualizations of impoliteness show no consensus on how the concept should be defined. However, a common denominator (see Bousfield 2008; Culpeper 2008; Terkourafi 2008) is the association of impoliteness with face threatening behavior leading to face loss. The similarities seem to end there because whereas the speaker's intention to be impolite plays a major role in some definitions of the concept (Culpeper 2005, 2008; Bousfield 2007, 2008), the hearer's judgment of a given utterance as impolite is crucial in others (Locher & Watts 2008; Holmes et al 2008; Haugh 2007). Clearly, as Locher & Bousfield (2008: 4) state, more research is needed to ascertain the role of intention in the production and interpretation of impolite—or rude—behavior. Therefore, it may indeed be too premature, as Kienpointner (2008, p. 245) claims, to hope for a "truly universal definition of impoliteness at the present stage of research".

In this context, impoliteness will be understood:

a) From the point of view of the speaker/writer as intentional individual/collective face-attack against other participants realized by lexico-grammatical strategies
b) From the point of view of the hearer/reader, impoliteness will be an assessment that his/her individual or collective face has been threatened by a participant in a previous turn. The assessment of a previous turn as impolite will be carried out (i) explicitly or (ii) implicitly by an uptake that reciprocates individual/collective face attack.
c) Both speaker/writer & hearer/reader will base their production/assessment of a given turn as impolite on the norms guiding interaction in a given discourse or genre. The norms guiding governing public political debate – such as the one under analysis - are those of civility, according to Sellers (2004). Therefore, ideologically supported hostility to others will be perceived as violating the basic premises of public discourse, and thus can be considered impolite.

In what follows, and drawing on a corpus of sequences selected from the comments section to videoclips posted on YouTube related to the US 2008 primaries and presidential elections, I first analyze the type and number of occurrences of impoliteness strategies. I then proceed to analyze the recurrent patterns and lines of argumentation found in the corpus that can be related to polarization. The aims of the analysis are threefold and respond to the three research questions stated below that are keyed to the main hypothesis of this paper, namely that polarization within this context will be related to an increase in the number of positive impoliteness strategies:

Research questions

1. What impoliteness strategies are more frequently used in the corpus?
2. Is there a correlation between total number of impoliteness strategies the number of positive impoliteness strategies per sequence, so that a higher number of impoliteness strategies correlates with a more pervasive the use of positive impoliteness?
3. What patterns or lines of argumentation, if any, can be associated with the creation of polarization in this context?

METHODOLOGY

Data

The 25 sequences (totaling 14,528 words) contained in the sample were selected from the comments section to video clips posted on YouTube. The criteria used for selection were thematic, temporal and by phenomenon (Herring 2004): the 19 different videoclips were all related to the USA 2008 Primaries and Presidential elections. In these sequences, participants discussed the merits of a given candidate/policy/ideology/party. Some of the participants involved were pro the issue at hand, others were against it. No agreement or consensus was reached within the specific sequence. Furthermore, all sequences included in the corpus contain language that can be deemed face-threatening, i.e. impolite, according to the definition of impoliteness stated above.

Following Herring (2004), the most salient characteristics of YouTube are as follows: YouTube is a multimedia contribution site that combines text + video+ audio and graphics; it uses a pull technology[5], as viewers must go to the site to post messages, versus a push technology where messages come to subscribers; it is both public and semi-public, because although registration is not required to view videos, one needs to register and have a password to post comments or videos, and to access personal channels; YouTube can be characterized as a loosely defining pre-existing community; most viewers have never met face-to-face[6]; it presents a very heterogeneous population of users. Although, initially YouTube was related to mostly young users, the political videoclips, channels and forums attract an older user (See description of participants below); the creators' goals were broad and ambitious, but probably becoming a political forum was not foremost in the minds, as YouTube started out as a video sharing platform; the discussion in the comments section is often focused around artifacts (video clips). However, a comment reacting to a video clip may be the trigger for a thread of conversation developing on an unrelated topic, so in a way topics are selected by participants. It is from these sections that the sequences included in the corpus were extracted.

The unit selected for analysis is that of conversational sequence. This unit fits my analysis as the sequences herein analyzed are seen as realizing an on-line polylogue. Describing an interaction in an on-line group as a polylogue involves considering a set of messages as constituting a conversation. (See Marcoccia 2004, pp.117-8 for a discussion). Sequences are understood as larger units of conversational moves bound together by their topical or functional coherence. (Jefferson 1972; Herring 1999; Stubbs 1983).However, since CA was born and developed before the advent of CMC, many of the proposed units of analysis need to be adapted to the new structure and conventions that come along with this medium. As Herring (1999) and Marcoccia (2004) point out, violations of sequential coherence are very common in CMC environments. Frequently, adjacency pairs are disrupted by the introduction of irrelevant messages, and the conversation structure seems to be misunderstood by users. Moreover, more than one conversation thread can be occurring simultaneously and opening and closing sequences can happen at the same time.

In some of the sequences selected for the analysis, some disruption of adjacency pairs can be observed, but, for the most part, these sequences exhibit topical coherence in the sense that most turns are related to the previous turn and all turns are related to a given discourse topic. Sequences varied in length. Thematic considerations dictated how many turns were included in each sequence. Marcoccia (2004) states that a characteristic of on-line polylogues is that sequences tend to be short, five messages on the average. However, that was not the tendency observed in the corpus. The average sequence was 12.7 turns long[7]. The shortest was 5 turns, and the longest 35. A total of 318 turns were analyzed[8].

The number of participants varied among sequences from 3 to 32. The total number of participants in the twenty-five sequences was 235. Participant information was very limited, mostly to age – which varied widely from 17 to 77 years old[9]- and country of origin. However, some participants had their own channels – personal profiles pages - to which other users could subscribe. This subscription is sometimes open, sometimes restricted to those users to whom the channel's proprietor allows access (Lange 2008a). They post their favorite videos from YouTube and other sources. Sometimes they create and appear in their own videos discussing their political beliefs. See for example: http://www.youtube.com/user/TylerNull

To create a more homogeneous pool, those participants that identified themselves explicitly or implicitly as citizens of other countries other the US were eliminated. Including their comments might have skewed the data, as they may be abiding by norms of conduct different from the majority which was overwhelmingly American. Lack of information also stymied considerations of online behavior related to gender (but see Herring 1994, 1995).

However, the fact that hardly any personal information was shared in most cases was an added benefit for the goals of this paper which seeks to relate deindividuation to impoliteness and impoliteness to polarization.

The sequences chosen were those to which several participants contributed turns which contained language that could be characterized as impolite. Impoliteness was directed towards:

a) The theme of the video-clip- usually one of the candidates
b) Another candidate other than the one portrayed in the video-clip
c) The participants involved in the specific exchange
d) Democratic or Republican parties –also referred to as liberals or conservatives.
e) The media

Procedure

The sequences were then coded for impoliteness. IM-politeness phenomena have been widely studied within the paradigm of pragmatics. Therefore, the focus of this analysis is the social behavior of participants, as it is realized by their use of linguistic expressions. Impoliteness strategies were identified by applying an adaptation of the classification put forth by Culpeper (2005) (see Bousfield 2006 for a discussion and reorganization of Culpeper's proposed strategies) and refined by Kienpointner (2008). These strategies are described below and illustrated with examples extracted from the corpus:

On record impoliteness:

A) Positive impoliteness: The use of strategies designed to attack the addressee's positive face wants. Brown and Levinson (1987: 61) defined positive face as "the positive, consistent self-image or 'personality' (crucially including the desire that this self image be appreciated and approved of) by interactants.
   - Ignore/snub the other [ISO] *No examples were found in the corpus*
   - Exclude other from the activity [EOA] *No examples were found in the corpus*
   - Dissociate from the other [DFO]

Sequence#23 –Truindep- …while i detest Obama and am not a dem i am not a repub either

Sequence#15- john135246 - it looks like you didn't read what I said, which is ok considering we unlike you want what the founding fathers wanted which is the Constitution which is what most Americans want according to ALL polls.

- Be disinterested, unconcerned, unsympathetic [DUU] *No examples were found in the corpus*
- Use inappropriate identity markers [IIM]

Sequence#13-GREYMANTIS7 - Obami has been served his supena, he has to show his birth certificate showing he really is a U.S. citizen. He does not have a legit birth certificate, he will step down and your witch hillary will step in, both have nothing to offer Real Americans, only more Fanny Mae and Freddy mac, for cheap imports. NWO will come to be, as the jerry springer family (liberal dems) ruin this

- Use obscure secretive language [OSL] No examples were found in the corpus
- Make the other feel uncomfortable [MOFU]:

Sequence#15: Suz45: Iraq had nothing to do with 911,jen,so invading them served no purpose in that regard...just cost the lives of over 3,500 American soldiers.

- Seek disagreement [SD]:

Sequence#15 jendollar (in response to Suz45's comment) That would be your opinion.

Sequence#24- danberkeley- inspire, inspire, inspire! Whats that got to do with being president?

- Use taboo words [TW]:

Sequence#1 - WillBackbone- North Korea LOL that little crazy idiot won't do anything. I knew Ronald Reagan and Barack the Magic Negro you are NO Ronald Reagan

- Call the other names [CON]:

Sequence#21- dedamol - Mr Gismotech, I am finally convinced you are a retard! …People like you are lazy ass white underachievers, unhappy with their lot in life

B) Negative impoliteness: The use of strategies designed to damage the addressee's negative face wants. Brown and Levinson (1987: 61) define negative face as "… the basic claims to territories, personal preserves, rights to non-distraction – i.e. to freedom of action and freedom from imposition".
   - Frighten [FR]

Sequence#12- Vektor417 -You Sheeple really need to think about the human lives that will be lost if this cfr warpig get elected.

- Condescend, scorn, ridicule [CSR]:

Sequence#7- blackeyedsiouxsie - Oh great, another Great Depression. Oh well, at least we'll be able tell great stories to our grandchildren in the future about how we had to live in a cardboard box and eat our family pets.

- Invade the other's space [IOS] – *No examples were found in the corpus*
- Explicitly associate the other with a negative aspect [ANA]

Sequence#15-Stevenhiggles -You say that most Americans are losers? No we are just traditionalist thats doesn't want secular progressives running this country and thats who Obama is.

- Put the other's indebtedness on record [PIR] – *No examples were found in the corpus*
- Hinder or block the other, either physically or linguistically [BO]

Sequence#20- lavampire- just shut up; don't whine…

Off record impoliteness

C) Implicated impoliteness: The face threat is performed by means of an implicature, but in such a way that one attributable intention clearly outweighs any others. [IP]

Sequence#15-

john135246 - JohnRaytheon, EVERYONE knows the only real losers are the ones who support McCain and Palin.

JohnRaytheon- you mean 51% of America? Just move to Venezuela...or go back there

D) Sarcasm; The use of politeness strategies that are obviously insincere and thus remain surface realizations. [SRC]

Sequence#20 - vekimov1: I am SO impressed with Hillary! I've been an Obama supporter but I think I'm changing up! This is one AMAZING person! I've never seen someone who, while on the verge of breaking down into tears, is able to to deliver a perfect political message, asserting the basic theme of her candidacy while contrasting it with her opponent, and doing it all so eloquently.

Withhold politeness

Keep silent or fail to act where politeness work is expected. [WP] – *No examples were found in the corpus.*

Coding of sequences was conducted twice: firstly by the author and a trained assistant independently and secondly by the author and her assistant jointly, during which time any existing disagreements were resolved. When a specific category, i.e. a specific impoliteness micro-strategy, was initially thought to be ambiguous, decisions were made using hearer interpretation (Fraser 1990). Strategies were then counted and subjected to statistical analysis.

As noted by Herring (2004, p.370), quantitative analysis "…may not be the best approach for analyzing complex, interacting, ambiguous or scalar phenomena". Those phenomena, Herring states, may be more comprehensively described by qualitative, interpretative approaches. Thus, the second part of the present analysis is qualitative: its aim was to identify patterns of interaction at both the micro and macro levels that could be related to polarization, which was defined as the trend found in individuals, after a group discussion, "… to endorse a more extreme position in the direction already favored by the group". (Lee 2007, p. 385)

The results of the quantitative and qualitative analyses are presented in the next section.

RESULT AND DISCUSSION

Quantitative Analysis

The first part of the analysis focused on the quantification of the different types of impoliteness strategies found in the corpus with a view to answer the first and second research questions.

A total of 1,014 impoliteness strategies were identified. As shown in Figure 1 below, 95% of

Figure 1. Impoliteness strategies

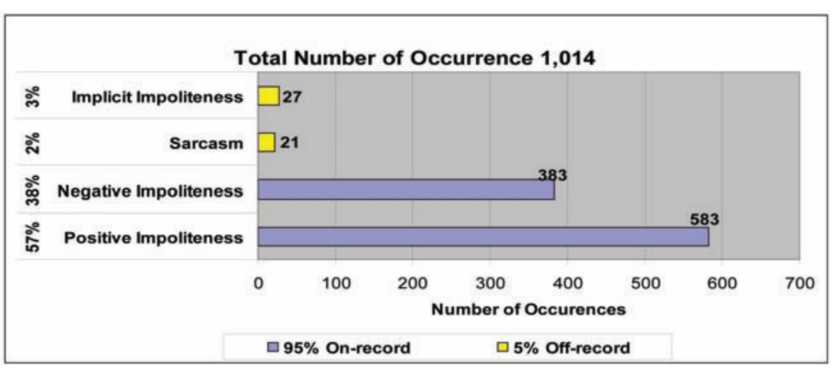
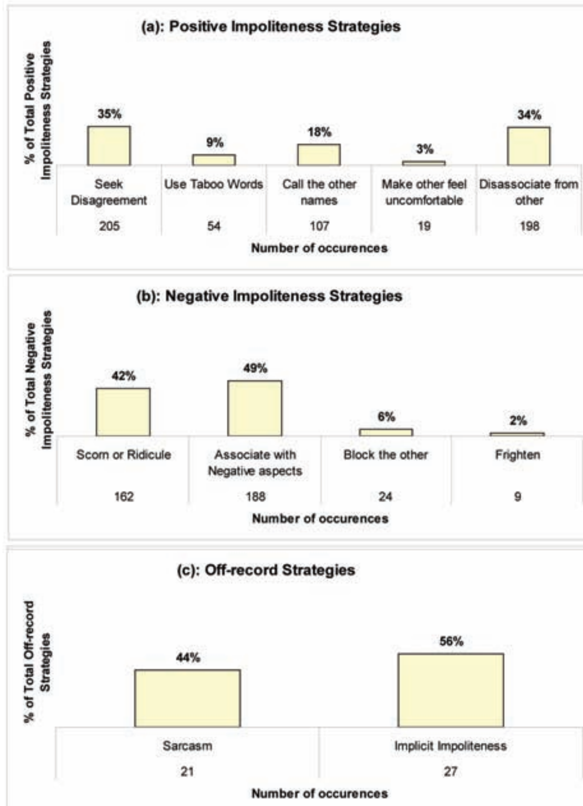


Figure 2(a, b and c) details the type and number of occurrences of the strategies used to convey positive, negative and off-record impoliteness

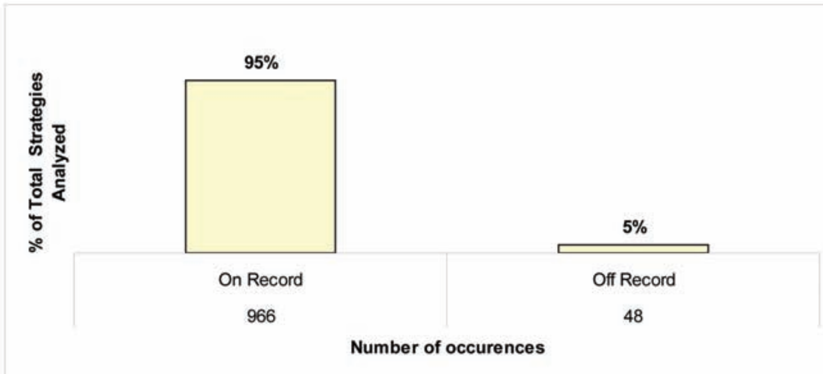


these were on-record impoliteness and 5% off-record. Within on-record strategies, 583 were positive impoliteness and 383 were negative impoliteness.

Figure 3 shows the frequency of use between on-record and off-record impoliteness strategies in the 25 different sequences analyzed. The data clearly shows a preference for on-record strategies versus off-record. T-tests (paired, two sample for means) were conducted to ascertain the statistical significance of these results. By conventional criteria, this difference is considered to be statistically significant. The two-tailed P value is less than 0.0001 with t = 8.7289.

The strategies from those analyzed used most often were positive impoliteness, which confirms the main hypothesis, namely that polarization, during and after group discussions, will be realized by an increase in the number of positive impoliteness strategies. Within the different strategies available, "Seek disagreement" (n=206) and "Dissociate from other" (n= 198) were the two most frequently used by participants, which fits in well in a context of polarization where, after discussion, no consensus is reached and participants identify more strongly with the in-group's, versus the out-group's, values. "Explicitly associate the other with a negative aspect" (n= 188) and Condescend/Scorn/Ridicule (n=162) were the negative impoliteness strategies most frequently by participants. Those participants, policies, candidates etc. connected with the out-group were frequently associated with negative attributes and often scorned or ridiculed. Thus, they were

Figure 3. Politeness strategies



portrayed as undesirable for the in-group, which contributes to polarization, and reinforces the sense of us versus them on which it is based.

Shown, in Figure 4 below, is the occurrence of positive impoliteness versus negative impoliteness within on-record strategies. T-tests (paired, two sample for means) were conducted to ascertain the statistical significance of these results. By conventional criteria, this difference is considered to be statistically significant. The two-tailed P value is less than 0.0001 with t =5.3137.

The second research question involved frequency of positive impoliteness and whether there was a correlation between its use and the number of negative and off-record impoliteness occurrences per sequence. As set out in figure 5 below, there is a definite trend between the number of positive impoliteness occurrences per sequence and negative and off-record impoliteness. As negative and off-record impoliteness increases in use, so does positive impoliteness within each sequence.

The analysis of impoliteness strategies contained in the corpus unveiled certain patterns of discourse that can be related to polarization. These are explained in Section 6.2, which contains a qualitative analysis of relevant data. This section aims to answer research question 3: "What patterns or lines of argumentation, if any, can be associated with the creation of polarization in this context?"

Figure 4. On-record strategies

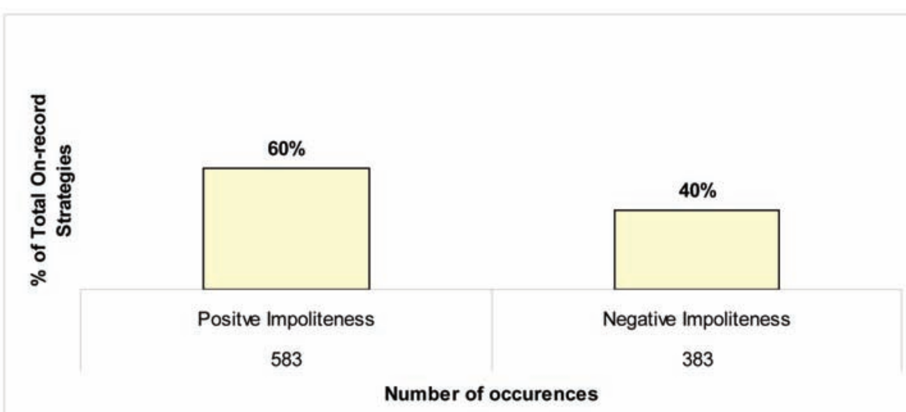
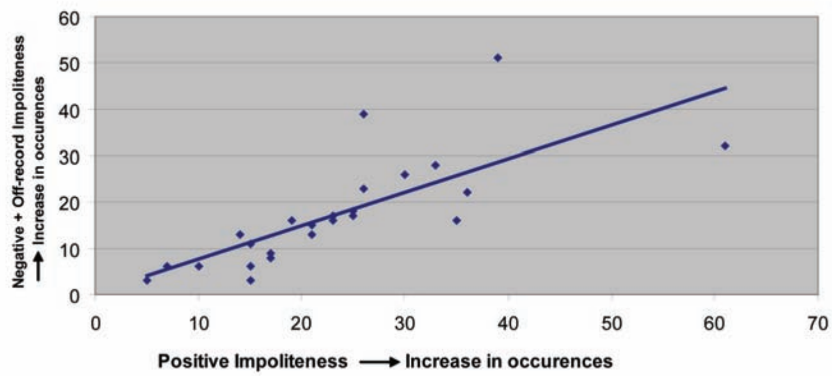


Figure 5. Trend between positive impoliteness and negative/off-record impoliteness



Qualitative Analysis

Patterns of Polarization

A common pattern of polarization found in the corpus was the following: face attacks against candidates turn into face attacks against specific participants in the exchange, supporters of that candidate, and conclude with face attacks against the whole collective of supporters.

Face attacks against candidate(s)

↓

Face attack against a particular participant, who supports that candidate

↓

Face attacks against that candidate's party supporters

We can see this pattern at work in the following example:

Sequence# 8 - Comments to the videoclip *McCain: Fundamentals of Economy Strong*

TWarren22

Your comment is NOT TRUE. You're like John McCain, and that's an insult. All Republicans do is lie to get into office! For your info., Obama made about $170,000 in 2007! That's a far cry from $4.2 million. His house was $1.4 million, only 3/4 of what you stated. Also, he may have money now, but he grew up poor. McCain has always been rich. Also, if you do the research, Obama's net worth is $799,000, compared to McCain's $36.4 million net worth. That makes him worth 45.6 times more.

Don't lie!

In this sequence, TWarren22 responds to a John McCain supporter who has just stated that Obama made $4,2 million the previous year. TWarren22 disagrees openly with this comment, using positive impoliteness, and then associates the supporter with a negative aspect, a way to convey negative impoliteness: "S/he is just like John McCain": this comparison carries the illocutionary force of an insult, and it is made explicit by TWarren22. Right away, the act of lying associated with the supporter and John McCain is extended to the whole Republican party. Therefore, the explicit association with a negative aspect, a negative impoliteness strategy, is generalized to "all Republicans".

Another pattern frequently found in the corpus involves the combination of positive and negative impoliteness strategies. Not surprisingly the four strategies involved are those with a higher number of occurrences in the corpus:

Explicitly associate other negative aspect → Dissociate from other or Seek disagreement

Condescend/Scorn/Ridicule → Dissociate from other or Seek disagreement

This pattern can be seen at work in the following examples extracted from the corpus:

Sequence# 1- Comments to the videoclip "*Would you meet diplomatically with these countries' leaders?*"

historywillabsolve - Ronald Reagan was a senile puppet, i'm glad Obama is no Reagan.

Participants are involved in a discussion comparing former president Ronald Reagan, a Republican, with then presidential candidate Barack Obam. Historywillabsolve, an Obama supporter, uses negative impoliteness to ridicule former president Ronald Reagan, portaying him as a "senile puppet", and positive impoliteness to dissociate his candidate, Obama, from Reagan.

Sequence# 11 - Comments to the videoclip *Barack Obama Democratic Nomination Victory Speech*

Brentpourciau: How can this be the next President of the United States. He is totally unqualified to run this country. The Democratic Party ignored the popular vote to make a young inexperienced senator their nominee for the President of the USA because he is Black, Liberal and Charismatic. It had nothing to do with credentials.

Brentpourciau's comment initiates this sequence in which participants discuss Obama's speech in Chicago, after winning the Democratic party's nomination. Brentpourciau uses negative impoliteness and explicitly associates Obama with negative attributes: he is unqualified for the job; he has no previous experience. He then expresses his disagreement with Obama's nomination: it was not based on credentials, as it should, but on the fact that he is black, liberal and charismatic.

Sequence#21 Comments to the videoclip *Obama's race speech -Part 1 of 4*

dedamol I am intelligent enough to know that JW was wrong. Obama has also said so repeatedly. Its called independent thinking. I also do not think Ferraro is racist, and I think McCain is a good guy. I also do not hate GWB, I just think he was a poor president. You see, I do not believe in rabid hate the way you do!

dedamol, who is subscribed to Obama's YouTube channel, and gismotech, a professed Republican, are engaged in a discussion regarding whether most members of the Republican party are racist. dedamol initiates this turn by acknowledging that Jeremiah Wright's – Obama's former pastor – black supremacist comments were wrong. He also points out that he does not believe that Geraldine Ferraro, a one-time Democratic, vice-presidential nominee, is a racist, although she had been accused of being so by certain media outlets. Also, he mentions he does not believe that McCain or George W. Bush are despicable, even though they are Republicans. With all these assertions, and using positive impoliteness, dedamol seeks to dissociate himself from gismotech whom dedamol explicitly associates with a negative aspect, that of feeling rabid hatred.

Polarizing Lines of Argumentation

In addition to the above described patterns, several lines of argument leading to polarization were recurrently found in the corpus:

a. Impoliteness, name calling, etc. is a liberal/conservative trait

Sequence# 3 – Comments to the videoclip Tensions Flare Between Obama and Clinton at SC scotty1403 i love watching these liberals fight dirty... it gives conservatives so much to work with come election time

prw51 Scotty1403- you ignorant brainwashed twit! Like Romney and Huckabee and McCain are all kissy kissy? That is what primaries are for, candidates contrasting their records and attacking their opponents. NEWSFLASH- it is happening in both the Democratic and Republican parties, in case you have been living under a rock for the past 18 months.

scotty1403: lol look at the namecalling... typical liberal... run out of facts so start with the immaturity.... sorry conservatives aren't "attacking" each other like this clip shows

scotty1403**:** i gotta be careful what i say. I dont want you to pull a Clinton and cry on me.

Scotty1403 starts this sequence by reacting to the content of the video-clip in which reports on alleged tensions between the Obama's and Clinton's camps. He uses negative impoliteness to attack the candidates' faces, as he explicitly associates them with a negative aspect. As a conservative, he is happy because he sees this as a future advantage for the Republicans. Therefore, positive impoliteness is also employed by creating a sense of us (the conservatives) versus them (the liberals – which in this context is used as a pejorative term).

In the next turn, Prw51 attacks Scotty1403's face using positive impoliteness (call the other names) "you ignorant brainwashed twit!" and also very explicitly seeks disagreement (another positive impoliteness strategy) to indicate that both parties engage in disqualifications at this stage of the campaign. Scotty1403 responds by explicitly evaluating Prw51's turn as inappropriate – name calling – as to generalize this behavior as "typical liberal". Thus, both negative impoliteness and positive impoliteness are used. Negative impoliteness is used to explicitly associate liberals with a negative aspect – impoliteness and name calling – and positive impoliteness is employed to create a sense of "us" – the conservatives – versus "them – the liberals. Scotty1403's last two utterances contain another type of impoliteness strategy: off record impoliteness. The first one is sarcastic "sorry conservatives aren't "attacking" each other like this clip shows". In the second one, "I dont want you to pull a Clinton and cry on me" face attack is also implicitly communicated. "A Clinton" refers to Hillary Clinton's emotional moment when she teared up at a meeting with women supporters. Scotty1403 implies that if he is too hard on Prw51, s/he will start crying as well, which conveys the sense of "liberals" as weak and manipulative – as many argued that Clinton's display was fake, a means to bring the audience closer to her plight.

b. Those who oppose Obama are white supremacists or racists

Sequence# 13 **-** Comments to the videoclip Comments on McCain: Who is the Real Barack Obama – Part ½

kicnbac: GO McCain! Obama is a liar. Plain and simple.

dino2763: white supremacy.people are no used to see a black educated men.regardeless of his education and his charisma,his ability to lead and his honnesty to do good for people which he did before more than McCain who hide in his houses and buy 520$ shoes. regardeles of that whites still feel that a white men is moe competent than a black. racism is a cancer.Poor white people they have a sickness. I am white and dont have that desease. what will piss off white is a black president as their BOss.

This exchange is part of sequence 13. Participants are reacting to the video on which McCain discusses who the real Obama is. McCain refers to Obama as a "Chicago politician" – a characterization which carries connotations of corruption with it. Kincbar, a McCain supporter, agrees with this assessment. He attacks Obama's face calling him "a liar"; s/he uses positive impoliteness: call the other names. dino2763 uses positive impoliteness to characterize both McCain and kicnbar as "white supremacists". There is nothing wrong with Obama. They just do not want a black president. He continues using positive impoliteness by establishing an us/them division along racist lines: white people versus black people and by distancing himself from white people with racist views: "I am white and don't have that desease".

c. Those who support Clinton are radical feminists

Sequence# 19 – Comments to the videoclip Clinton ending her presidential campaign.

Marked as spamthegiantpaperpanda -No one cares about you fat ass femi-nazi Clinton supporters.

Eat your double-stuff Oreos bitches! hahahahhahaha!!!!

Marked as spamthegiantpaperpanda uses positive impoliteness to diassociate him/herself from Clinton supporters "no ones cares about you". More positive impoliteness is conveyed by the use of taboo words: "you fat ass …" and by calling those who support Clinton names such as "fat", "femi-nazi" and "bitches".

d. Complete disqualification of candidates or other politicians

Sequence#13 - Comments to the videoclip *McCain: Who is the Real Barack Obama – Part ½*

opchidexio: Obama is MUCH, MUCH worse than a "Chicago politician." He is a MARXIST CREEP FROM HELL. He is the dog shit on the bottom of one's shoes. He is a bald face liar, an America hater in league with America's enemies.

opchidexio uses off-record impoliteness to refer to Obama as 'worse than a Chicago politician'. Chicago politics has long been associated with corruption. In recent months, for example, former Illinois governor, Rod Blagojevich. was impeached and removed from office on charges of attempting to sell Obama's vacated Senate seat. Opchidexio also uses positive impoliteness to call him names: "maxist creep from hell", and continues using taboo words "he is the dog shit on the bottom of one's shoes". Negative impoliteness is also used when opchidexio explicitly associates Obama with negative aspects: he is a liar, he hates America, and he is in league in America's enemies.

frostingm05

I agree with Karjose...hw he lets the f***en ppl call OBAMA a f***en terrorist......I honestly think the worlds biggest terrorist will be Mccain if he wins.

In the same sequence, participants are discussing McCain's reaction when a participant at one of his rallies called Obama an "Arab". frostingm05 feels McCain should have defended Obama. He uses positive impoliteness and employes taboo words "f***en", and negative impoliteness to associate McCain's behavior with a negative aspect: lack of response. He concludes his turn with negative impoliteness, and characterizes McCain as "the worlds biggest terrorist".

e. The liberal/conservative/right wing media is to blame for misinforming the public

Sequence#6 - Comments to *McCain: Fundamentals of Economy Strong*

davitals You f***ing idiots, the fundamentals are strong! Its the weak liberal media who would have you run and hide under your bed. Stop falling for the fake media depression, yes times have been better but then they have also been much worse! Remember your beloved Obama took in over 66 million last month, the Hollywood movies are still selling out and the biggest worry as of now is what type of new cell phone to buy. America will be just fine aslong as you vote McCain/Palin.

A common point of contention between repblican and Democratic supporters is the role of the media in the electoral campaign. Republicans argue that the mainstream media has a very strong liberal bias, thus supporting Obama and the Democratic agenda. In this turn, davitals, a McCain supporter, blames the "liberal" media for conveying a sense of doom regarding the economy. He argues that Democrat supporters are misinformed, as their information on the ecomony comes from biased sources.

Conveying positive impoliteness, he uses taboo words, calls them names: "f***ing idiots", and strongly disagrees with those who believe the US economy is weak. He uses off-record impoliteness to portray those who believe the liberal media as weak and esay to fighten " you run and hid under your bed". The liberal media is explicitly associated with a negative aspect, which conveys negative impoliteness: davitals characterizes it as a fake.

Sequence#3 – Comments on the videoclip - *Tensions Flare Between Obama and Clinton at SC Debate*

Prw51 Marked as spamScotty, there were studies done after the 2004 presidential election that showed the blue states with higher income and educational attainments than the red states. Also, the lowest divorce rate in the nation is in liberal, Democratic Massachussetts, the highest in redneck Republican Mississippi. You should expand your sources of information beyond Fox News and the Rush Limbuagh Comedy Hour my dear conservative retarded friend.

On the other hand, Democratic supporters accuse Republicans of getting one-sided information from the FoxNews Channel or the Rush Limbaugh radio show, both openly conservative. In this sequence, prw51 uses this point in his argument with scotty. Using positive impoliteness, prw51 contradicts scotty: contrary to what scotty believes, the blue states, those that vote Democrat, have a higher level of education and income, and a lower rate of divorce than the red states, those that vote Republican. He uses a derogatory term, redneck, to refer to the red states, which conveys positive impoliteness. Then, prw51 uses off record impoliteness: he implicates that scotty's information is wrong because his sources are biased, and he assumes that, because scotty is a Republican, those are the news outlets he gets his information from. Prw51 ends his turn by using sarcasm – mock politeness: "my dear conservative.." combined with positive impoliteness (name calling) "retarded".

As shown in the examples analyzed, the two recurrent discourse patterns and five lines of argumentation found in the corpus and described above can be linked to polarization since they emphasize the "us versus them" mentality that participants exhibit when, during or after a discussion, they tend to endorse a more extreme position in the direction already favored by the group. Polarization is shown when arguments become a matter of "black or white": there are no grey areas where people with different ideas or supporters of different candidates may converge.

Accordingly, the answer to the third research question posited in this study, "What patterns or lines of argumentation, if any, can be associated with the creation of polarization in this context?", would have to be affirmative.

Although the results of the analysis need to be taken as tentative, due to the size of the corpus, they strongly support the view that impoliteness is linked to polarization in on-line environments. How this polarization is translated into daily life, and ultimately into voting trends remains to be seen, and certainly exceeds the scope of the present paper. However, the preponderance of impolite behavior in on-line interaction is a topic that deserves further attention, especially as it relates to conceptions of politeness as the default term in interaction, as posited by Fraser (1990). All the chapters contained in this book aim at presenting a comprehensive account of language structures and social interaction in the digital age. Therefore, the fact that language that can be deemed impolite constitutes a significant choice made by participants engaged in on-line interaction to address each other needs to be addressed and accounted for, as it can have significant consequences on off-line environments.

Reeves and Nash (1996, p. 127) have documented that viewers' emotional and physiological responses to mediated conflict are analogous to those found in real face-to-face situations. Furthermore, and crucially for the purposes of this paper, Mutz (2007, p. 633) documents that mediated incivility further damages the perceptions of the candidates and issues viewers are already inclined to dislike, and thus increases the extent of the difference that is perceived between one's side and the opposition. Mutz's conclusions are in line with Lee's (2007) caution to the effect that on-line, deindividuated, interaction that focuses on political issues may likely increase the contrast between the in/out group perspectives, leading to polarization of opinions and be a obstacle for building public consensus. Taking into consideration that, according to May (2008), a quarter of Americans in the 2008 election regularly turned to the internet for information about the presidential race and that 42% of 18-29 year olds used the Internet for campaign information, we cannot underestimate the influence that engaging in on-line, political discussions may have on voters' perceptions of other party's policies, and what type of climate this will be conducive to.

CONCLUSION

The quantitative and qualitative analysis to which the 25 sequences extracted from the comments sections of YouTube videos related to the US 2008 primaries and presidential elections confirmed the main hypothesis of this paper, namely that polarization can be related to an increase in the number of positive impoliteness strategies used. This hypothesis also motivated the three research papers that guided the analysis. With respect to the first research question, "What impoliteness strategies are more frequently used in the corpus?", the results indicated a statistically significant preference for on-record impoliteness strategies and more specifically for positive impoliteness. Also, the results of the analysis unveiled a correlation between the increase of occurrences of negative and off record strategies, on the one hand, and the number of occurrences of positive impoliteness, on the other. Therefore, the answer to research question number two- "Is there a correlation between total number of impoliteness strategies the number of positive impoliteness strategies per sequence, so that a higher number of impoliteness strategies correlates with a more pervasive the use of positive impoliteness?" – is affirmative.

The answer to the third research question – "What patterns or lines of argumentation, if any, can be associated with the creation of polarization in this context?" was also affirmative. The analysis revealed the existence of two discourse patterns and five lines of argumentation which were recurrent in the corpus and could be tied to polarization.

This study also raised important questions regarding current theories of im-politeness. It was argued that impoliteness, within this polyloguic context – should be seen as multifunctional. Therefore, current notions that equate impoliteness with disruption of communal life need to be revised. By creating a strong sense of us versus them, impoliteness reinforces the out-in group division, intensifying in-group cohesiveness by making the attributes associated with the out-group undesirable.

In view of recent research that equates mediated impoliteness with an increase in polarization of ideas (Mutz 2007; Mutz and Reeves 2005), it would seem necessary to complement textual analyses of on-line impolite behavior with research measuring the effects of this type of interaction on participants' view of political or ideological persuasion.

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KEY TERMS AND DEFINITIONS

2008 USA Elections: After Senator Hillary Clinton's defeat in the democratic primaries, Senators John McCain and Barack Obama ran for the presidency of the US.

Computer-Mediated Communication/ CMC: Refers to any communicative transaction between two or more individual people who interact and/or influence each other through the use of two or more separated networked computers.

Deindividuation: Refers to the situation in which an individual is so immersed in a group that s/he is no longer seen as an individual.

Linguistic Impoliteness: Face threatening linguistic behavior leading to face loss.

Polarization: Refers to the process in which - during or after political or other types of debate - a group divides itself into two, or more, factions with completely divergent views on the issue at hand.

Political Discourse: Refers to the discourse practices engaged in by all actors – from politicians and organizations to citizens- in a political process.

Pragmatics: A field of linguistics that aims to describe how social/cognitive constraints on the production /interpretation of discourse.

YouTube: Started as a video sharing website on which users can upload and share video clips and view them. More recently, it has been become a social interaction platform and a locus for political debate.

ENDNOTES

1 Some researchers argue that complete anonymity is seldom the case in on-line contexts. (See Kendall 2002; Lange 2008b among others)

2 I double checked all the viewers' profiles to establish where they were from. Although, it is possible that viewers may misrepresent their nationality, other aspects - such as knowledge of the culture, current issues, and mastery of English - were also taken into consideration to determine that all participants included in my corpus were indeed from the US.

3 See, however, Kienpointner's (2008: 250) conclusion, "In certain exceptional contexts, even fallacious emotional arguments expressed in a highly impolite way cannot be judged as (totally) uncooperative", regarding the use of impoliteness as a way to dissuade an interlocutor from a potentially destructive path of behavior.

4 Behavior that is considered appropriate in a particular context, and is not marked as polite or impolite (Locher & Watts 2005, p. 13).

5 "Although YouTube is mostly a pull technology, messages do come to people who subscribe to someone's channel to indicate that the video makers to whom they are subscribed have posted a new video. People who post videos also get messages when someone

posts a message to their video. People are also notified when someone replies to one of their comments (whether posted on their video or someone else's". Lange (personal communication).

6 "While many people who are casual viewers may not meet up (…), many people who are participants (who have accounts and are interested in more social commentary) actively seek to meet up with other people. I have seen at least vocal minorities who meet up regularly at big meet-ups and small get-togethers in groups or singularly with others" Lange, (personal communication).

7 I use turns as I agree Marcoccia (2004) that the corpus under analysis is an on-line polylogue and is therefore conversational in nature. Other researches use the message to refer to the same type of contribution by participants

8 Although the sample is small in relation to the amount of messages posted as comments on YouTube – some responses to video clips include more than 10,000 – it would seem to be representative by comparison to other similar studies. Papacharissi (2004) based her analysis on a total of 268 messages

9 The age of participants was taken at face-value, based on their statements, and cannot be verified.

Chapter 36
Digital Communication in Indigenous Languages

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ABSTRACT

This chapter looks at how the demands of modern day discourse behavior may impact upon and/or transform the use of indigenous African languages, as their speakers try to cope with and/or utilize computer-based communication gadgets and access/publish information on the information superhighway. It also presents a critique of one such effort at translating information on one brand of cell phone into major Nigerian languages. Drawing from the Yorùbá option, the authors show that new terminology has been created using the strategies of Terminologization, composition and translingual borrowing, but there are problems of inaccurate translation, use of non-standard orthography and non-indigenization of loan words. The chapter therefore proposes further refinement in subsequent terminology projects, especially the possibility of producing one-key symbols to represent the distinctive graphological symbols of indigenous African languages.

INTRODUCTION

Digital communication is the process of sharing ideas, information, and messages with others in a particular time and place with the aid of digital devices, devices that store and manipulate numbers, translate words and pictures into numbers for a computer to process and then translate the numbers back into pictures or words. The most important ones from an African perspective are cell phones, computers and the internet.

Communication in general is today supported by ICTs, and the lack of terminology in African languages establishes and entrenches the digital divide, making it well-nigh impossible for them to compete (UNESCO, 2005). Websites in African languages tend to be lean and most people literate enough to be able to browse in African languages may find it more economical to do so in a European language (read English).

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This is a question of economics: 'the medium and language most likely to be used are those that are most efficient for the work at hand' (Christopher, 2006, p.191). Information on the internet is more available in English than in any other language. The same author reports that in 1996, there were 9600 host computers using English. The next closest language used was German with 452 hosts. Adegbola (2006, p. 8) terms this 'the information asymmetry' that makes an African society vulnerable to foreign values. This vulnerability is what Mazrui (2005) describes as disglobalization, a creeping irrelevance to global concerns. This chapter now discusses the nascent efforts at redressing this anomaly and bringing African languages back into the global village market square.

GLOBALIZATION AND THE POLITICS OF LANGUAGE PLANNING

Globalization is the new euphemistic shorthand for the encroachment of the Industrialized Economies into aspects of the cultural space occupied by the non-industrialized countries especially traditional knowledge systems, spiritual and material culture and language, in much the same fashion that the slave trade and colonization robbed Africa of vital human and natural resources. It has been defined in various ways since the appearance of the term in the 1960s, and these definitions have been grouped into five overlapping classifications, with the different emphases betraying ideological biases. Scholte (2000) names the five classifications or "interpretations" of globalization as internationalization, liberalization, universalization, deterritorialization and westernization.

Mazrui (2005, p.1) provides a synthesis of these definitions:

In its broadest meaning globalization consists of all the forces that are leading the world toward becoming a global village. Globalization is thus the villagization of the world. In its narrower meaning globalization is the maturation of global capitalism and its interdependencies, alongside a new network of the information superhighway.

This information superhighway, popularly known as the internet, offers entertainment and information to people around the world, but the materials are 'available only in the most common languages. Therefore, globalization has had the negative effect of reducing the worth of African languages if considered in purely economic utilitarian terms.

However, language is not only an instrument for getting what one wants but also a definition of who one is. People have a right to have their language maintained and made technologically sophisticated enough to provide their users with access to the modern world. There is a need for increased and sustained institutional support for indigenous language products and services, increased L1 literacy, recording and preservation of traditional knowledge in the original tongues, and development of ICT products and services in Nigerian languages. One means of making African languages technology-ready is terminology development.

TERMINOLOGY DEVELOPMENT TO THE RESCUE

Most African countries are multilingual societies and explicit choices have to be made among alternative language varieties about which language variety fulfils which role. This role differentiation involves language planning which may be defined as the deliberate steps taken, by governments and their agencies, by language groups or even individuals, to influence the behaviour of others with respect to the acquisition, structure, or functional allocation of their language codes (Cooper 1989, cited in UNESCO, 2005, p.5). Some of the most important objectives of language planning, according to UNESCO (2005), include: implementation of mother tongue education policy as a means of checking high failure and drop-out rate; creation of an optimum environment for learning Science, Technology and Mathematics i.e., through the mother tongue; and bridging of the digital divide by developing indigenous languages for use in the electronic media. Others include fostering the development of human language technologies (HLTs); prevention of language-engendered political crises by creating roles for all languages in multicultural settings depending on their level of development; and provision of lexicons, manuals, literature, textbooks and other reading materials to members of a language community in their primary language. A close look at these objectives would show that terminology development is crucial to their being achieved.

Terminology planning, a branch of language planning, is the conscious and systematic development of special language to fit the needs and requirements of communication in specialized domains, where new technical terms come into languages the world over. These terms constitute terminologies, which may be defined as 'the set of terms with their specialized meanings (concepts) used in the special purpose languages (SPLs) of specific domains' (UNESCO 2005: 8). Terminology planning has two main areas: the subject oriented and the language oriented. Activities in the first area include knowledge organization, concept cognition and audio-visual representations. The second involves naming principles/concepts and is the interface where language planning and terminology planning meet. As noted in UNESCO (2005, p.1), language is the major means of domain communication, representation of specialized knowledge and access to specialized communication. SPL activities also result in the development of terminological standards, the linguistic norms of specialized groups which may in turn influence the linguistic norms of the larger language community. There is a two-way relationship between the linguistic norm of the larger society and the terminology of specialized groups; there is a flux of lexical material in both directions. GPL words may come to be used as terms (terminologization) and specialized terms may become generally known and used (determinologization).

Terminology refers to "the set of special words belonging to a science, an art, an author, or a social entity," as in, "the terminology of medicine" or "the terminology used by computer specialists." In a more restricted sense, terminology may be defined as 'the language discipline dedicated to the scientific study of the concepts and terms used in specialized languages' (Pavel & Nolet, 2001).

The designation of a concept in a particular subject field is known as a term or a terminological unit. is A term may be a word, an expression, a symbol, a chemical or mathematical formula, a scientific name in Latin, an acronym, an initialism, or the official title [REMOVED HYPERLINK FIELD]of a position, organization or administrative unit. Simple terms consist of just one word (compound or derived). Complex terms have two or more words and constitute a terminological phrase. Abbreviations and acronyms are shortened forms: abbreviations are shortened from a simple or complex term, with letters, syllables or words omitted from the original term. Acronyms are abbreviations of a complex term, made up of (mostly initial) letters or syllables of its components and pronounced as a single word while initialisms are abbreviations of a complex term made up of the initial letters of its components, each letter being pronounced separately.

All these kinds of terms are used in the brand of cell phone considered in the next section. The English source terms are presented in bold print while Yorùbá target terms are presented in bold italics. Words from languages other than English which are not existing or proposed target terms are presented in italics.

SMALL BEGINNINGS: A CASE STUDY OF INDIGENOUS-LANGUAGE SUPPORTED GSM TELEPHONY

This section discusses the use of Nigerian languages in a brand of telephone, the NOKIA 2310, type RM-189. It is a medium-sized phone, equipped with very basic features: a phonebook for 100 entries, capacity for text and picture messages and two games. It has a 28mm x 24mm color screen but no memory card, no camera, no music player. One can therefore assume that it was designed for the lower end of the market.

The screen is divided into five bars. The top bar of the 'front page' of the phone presents shows the icon for telephone signals on the right, and the battery icon on the right. The second bar shows the icon for the mobile service provider. The third bar is blank and the fourth shows the time. These four bars are identical, no matter which language is selected.

First in the list of phone settings for NOKIA 2310 is 'Language', and the five possible selections are 'Automatic'**,** **'**English'**,** **'**Igbo'**,** **'**Yorùbá' and **'**Hausa'. 'Automatic' is the same as **'**English'. When **'**English' or **'**Automatic' is selected, the lowest bar on the 'front page' shows 'Menu' on the left and 'Go to' on the right. When *'Igbo'* is selected, the lowest bar shows *'Meniu'* on the left and *'Gaa na'* on the right; when *'Hausa'* is selected, the lowest bar shows *'Menu'* on the left and *'Jeka z.'* on the right. In the case of *'Yorùbá',* the lowest bar shows *'Ààyàn'* on the left and *'Lọ si* on the right.

Keypad Layout

When a language is selected, the keypad provides options in the orthography of that language. For Igbo, the 4 key has ghi4, the 6 key has mno6 and the 8 key has tuv8. Hausa has abc2 on the 2 key, def3 on the 3 key, jkl5 on the 5 and wxyz9 on the 9 key. When Yorùbá language is selected, the 3 key presents def3, the 6 key presents mno6 and 7 key pqrs7. Following the vowels i, u, e, o, ẹ, ọ and a, as well as the nasals m or n, the Yorùbá keypad also presents the low tone diacritic () on the 2 key and the high tone diacritic () on the 3 key.

Subsequent examples will be taken from the use of Yorùbá on this cell phone, and the implications for modern studies in Yorùbá terminology development, including possible modernization of the orthography.

TERM CREATION STRATEGIES IN NOKIA 2310

Many new terms are used or specially created for use in NOKIA 2310. These will be classified by strategy of the word formation used.

Terminologization

This involves taking GPL words already in existence in the language and matching them to NOKIA English terms. Common words are made terms by giving them specialized meanings which they do not express in the GPL. Terminologization subsumes several techniques but two will be discussed here: extension of register and semantic extension.

In extension of register, existing words, usually of a non-technical nature are made to gloss foreign technical terms, thereby extending 'the range of registers in which such terms can occur'. There is no change in meaning involved. The Yorùbá word *àdàlú* normally refers to a dish of beans and maize cooked together. The idea of 'mixture' is retained when the term is employed in the physical sciences to refer to a substance containing two or more components that are not chemically combined and which can be separated by non-chemical means, e.g. a mixture of sand and iron fillings, or of water and oil. 'Sand and iron fillings' qualify as *àdàlú* in much the same fashion as 'beans and maize cooked together'. *Ìbò* is a term used in Yorùbá political discourse to signify

Table 1. Yorùbá NOKIA terms created through terminologization

Yorùbá NOKIA Term	**Literal Meaning**	**English NOKIA Equivalent**
1. Lọ si	go to	**go to**
2. Yan-an	select it	**Select**
3. Pada	return	**Back**
4. Jade	leave, go out	**Exit**
5. Ààyàn	specially selected	**Menu**
6. Ètò	arrangement	**Settings**
7. Ètò ohùn orin	arrangement of voice of song	**tone settings**
8. Fi ètò hàn	show arrangement	**Display settings**
9. Ètò àkókò	arrangement of time	**Time settings**
10. Ètò ìpè	arrangement of call	**Call settings**
11. Ètò fóònù	arrangement of phone	**Phone settings**
12. Ètò iye owó	arrangement of amount of money	**Cost settings**
13. Ètò nipa ẹ̀yà ẹ̀rọ	arrangement about part of machine	**Enhancement settings**
14. Ètò ààbò	arrangement of safety	**Security settings**

'vote', but comes originally from the register of divination where it refers to an object, clutched in the fist, to which a client speaks to quietly and from which a *babaláwo* (fortune teller) purports to discern his intentions or problems. Like the *ìbò* in divination, a voter marks his/her ballot paper privately and drops it into the ballot box.

In the case of semantic extension, there is a deliberate extension of the meaning of indigenous words to make them gloss foreign terms (Awobuluyi, 1994). The result is that one word now signifies two or more entities with shared characteristics (Awobuluyi, 1992). Cases of semantic extension usually entail extension of register. The traditional referent of *abẹ́rẹ́* is 'needle', used in dressmaking. The same term now refers to 'injection', an injected dose of a drug, as well 'syringe', the equipment for withdrawing and injecting liquids, in the register of medicine. *Ògógóró,* the term now used in Yorùbá for gin, especially the kind brewed traditionally from palm wine, is the name of town where the major traditional occupation is brewing. Odetayo (1993) also suggests the term *òjíjí* for 'electricity', from *ẹja òjíjí,* 'electric eel'. No new words are created, so neither extension of register nor semantic extension increases the vocabulary of a language.

The terms listed above are well-known words signifying new concepts. No. 1-4 are simple terms, and the meanings are fundamentally unchanged from what they mean in the GPL. 4 and 5 are also simple terms but their scope of meaning has been deliberately extended. *Ààyàn* usually refers to 'something special', and is most likely to be used in Christian religious discourse. Here, it is given the meaning of 'a list on a cell phone screen of the options available to the user'. This might be in part because the use of the source term 'menu' also involves semantic extension of the usual meaning of 'a list of dishes that can be ordered in a restaurant'.

The terminological phrases (No. 7-14) are based on the term *ètò* which usually refers to plan in Yorùbá. For example, family planning is *ìfètòsí ọmọ-bíbí* < *ì- fi ètò si ọmọ bí-bí* (putting of plan in child bearing) while language planning is *ìfètòsí èdè*. The base morpheme in *ètò* is *tò*, meaning 'arrange' and aptly captures the idea of 'settings'.

Table 2. Yorùbá NOKIA terms created through composition

Yorùbá NOKIA Term	Literal Meaning	English NOKIA Equivalent
1. Óróìfiráné	word of sending	**Messages**
2. Édá-óró-ìiráné	create word of sending	**Create message**
3. Ákopamó	what was written and kept	**Drafts**
4. Àwòrán ìfiranẹ	picture of sending	**Picture messages**
5. Àkójọ ìpinkiri	collection of distribution	**Distribution lists**
6. Àpótí ọ̀rọ̀ to nwọle	box for incoming words	**Inbox**
7. Ohun a kọ ranẹ	thing which was written and sent	**Sent items**

Composition

Composition refers to the creation of new terms in a language by combining some of its morphemes, words or even phrases to create new expressions denoting foreign objects or concepts. Awobuluyi (1994) identifies two compositional strategies: description and translation. The first, description, involves creating new terms by describing foreign physical objects with reference to the function or purpose of the device, its manner of production or application, its physical appearance, its behaviour or other peculiar characteristics. For example, the Yorùbá term for 'identity card' *ìwé ìdánimọ̀,* specifies its function as it literally translates to 'book for recognising a person'. A cell phone is referred to as *fóònù alágbèéká,* 'telephone that is carried about', a reference to its peculiar characteristic. A 'vibration truck' is referred to in Yorùbá as *ọkọ̀amilẹ̀tìtì* (vehicle that shakes the ground vigorously).

Another compositional strategy is loan translation. This involves the rendering of the morphemes of the source term in the target language. This is especially useful in naming concepts rather than objects, since these may not have physically observable characteristics that can be described. An example is the Yorùbá term for 'ear loan', *ọ̀rọ̀ àfetíyá,* literally 'word borrowed with ear'. From Igbo, Iloene (2007) gives the example of *àláōmájìjìjì,* 'land move vigorously' for 'earthquake' and *ágháōzùrú-ḿbà* 'war all over the place' for 'world war'. Table 2 below presents some examples of Yorùbá NOKIA terms formed through composition.

The morphological processes used in creating new terms by composition are affixation and explication. Other possible methods of compounding: nominalization, analogy, blending, and back formation have not been used here. Affixation involves adding prefixes to free morphemes or already existing words. In explication, noun phrases with relative clauses are used (Bamgbose, 1992). *Ọ̀rọ̀-ìfiránẹ́* is a noun phrase made up of a free morpheme, *ọ̀rọ̀* and a nominalized phrase composed of the nominalizing prefix *ì-* and the verb phrase *fi ránẹ́.* 3-5 are similar to No. 1. No. 2, *ẹ̀dá ọ̀rọ̀-ìfiránẹ́,* is a clause, with the predicator *ẹ̀dá* 'create' (<*e ẹ̀dá* 'do creation').

Àpótí ọ̀rọ̀ to nwọle and *Ohun a kọ ranẹ* are descriptive phrases, formed by explication. In *Àpótí ọ̀rọ̀ to nwọle,* the second part of the noun phrase, *ọ̀rọ̀,* is postmodified by a relative phrase, 'tí ó wọlé'. *Ohun a kọ rán*ṣẹ́ *<Ohun tí a kọ ránẹ́* is composed in a similar manner.

Translingual Borrowing

A loan is a linguistic expression borrowed from a source language not closely related to the target language; hence the term translingual borrowing. Borrowing by language developers is occasioned mostly by the non-existence of corresponding indigenous words, and sometimes by the

Table 3. Yorùbá NOKIA Terms created through translingual borrowing

Yorùbá NOKIA Term	**Literal Meaning**	**English NOKIA Equivalent**
1. SIIMU	----------	**SIM card**
2. Profaili	----------	**Profiles**
3. Redio	----------	**Radio**
4. Kàlẹ́ndà	----------	**Calendar**
5. Nọmba mi	my number	**My numbers**
6. netiwoki n sise lowo	network is working presently	**Network busy**
7. Bọ́tìnì ọ̀tún	right button	**Right key**
8. Bọ́tìnì lílọ s'ọ̀tún	button going to the right	**Right select. Key**
9. Olùàtúnkọ service com.	Re-writer of ???	**Service com. Editor**
10. Bounce	???	**Bounce**
11. Snake Xenzia	???	**Snake Xenzia**
12. Nature Park	???	**Nature Park**

inexactness or inappropriateness of competing indigenous terms. Examples from Yorùbá include *páànù* 'pan', *bébà* 'paper', *mọ́kálíìkì* 'mechanic', *dẹ́rẹ́bà* 'driver' and *báréкè* 'barracks'. Igbo attests examples like *sọ̄fìa jị̀ọlọjị̀* 'geological survey' and *lètrishị̀àǹ* electrician and from Hausa we have *makanike* 'mechanic' and *majistare* 'magistrate'. The borrowed words are liable to be modified in conformity with the phonological rules of the recipient languages. Two words that have borrowed by the three major Nigerian languages will serve to exemplify this. From the English word 'accountant', Hausa has derived *akanta*, Igbo *àkantāǹtị̀* and Yorùbá *àkáǹtáǹtì*. 'Computer' is *kwanfuta* in Hausa, *kọm̀pụtà* in Igbo, and *kọpútà* in Yorùbá,. Table 3 presents examples of Yorùbá NOKIA terms that were borrowed from English.

The terms listed 1-4 are simple borrowed terms with varying degrees of phonological adaptation. 5-8 are hybrid terms, containing indigenous and loan words. 9 is also a hybrid term, but the English words it contains are not phonologically integrated. 10-12 are phonologically and orthographically unmodified loan terms containing graphemes **c**, **x** and **z** which are not used in Yorùbá orthography.

Shortening

Shortening here refers to making an abbreviated form of a word or phrase to stand for the word or phrase. There are three main kinds: initialism, acronymy as well as clipping and blending. In initialism, the initial letters of a commonly used phrase stand for the word or phrase, and in pronouncing the new word, the letters are spelt out individually. The new word could be written as small letters, e.g. 'http' for 'hypertext transfer protocol', in capitals, e.g. 'IT' for 'Information Technology', written together as in the two examples already given, or separated by periods e.g. 'a.m.u' for 'atomic mass unit' and 'r.p.m' for 'revolutions per minute'.

An acronym is also formed from the initials letters of commonly used phrases but the resulting string is pronounced as a word. Examples include UNICEF, radar (radio detecting and ranging), scuba (self-contained underwater breathing apparatus) and GIGO (Garbage In, Garbage Out). Some words are formed using both methods. In HIV-AIDS and CD-ROM for example, the first part of each 'compound' is an initialism while the second is an acronym. In clipping and blending, some syllables of a word are cut off, that is,

Table 4. Yorùbá NOKIA terms created by shortening

Yorùbá NOKIA Term	**Word in full**	**English NOKIA Equivalent**
1. Orúkọ àti nọ.	*Orúkọ àti Nọ́ḿbà*	**Name and no.**
2. Òhùnkà ọ̀rọ̀ ìfir	*Òńkà-òrò-ìfiráné*	**Message counter**
3. Agm	*Agẹmọ*	**Jul**
4. Owew	*Òwewè*	**Sep**
5. OK	???	**OK**

clipped, and the rest are joined together to form a new word. It is of course possible for clipping to take place without any blending. The clip is then called a short form or an abbreviation. Examples of clips/blends include thermistor <thermal resistor, blogging < Web logging, and FORTRAN < formula translation.

Informal communication over digital media, e.g., short text messages, chat, is developing its own own jargon and abbreviations are very common. 'I'l c u 2day @ home b4 d mtn, dont b l8' translates to 'I will see you today at home before the meeting. Do not be late'. Abbreviation ensures economy of time and space. The short text shown here has 28 characters instead of 51 in the full text, so more words can be included at reduced cost. A few shortened forms have been created for the NOKIA 2310, as Table 4 below shows.

Two syllables have been removed from *Nọ́ḿbà* to produce *Nọ*. In 2- 4, shortening is done by vowel excision as can be seen when the abbreviated word is compared to the full form in Column 2. There is no difference between the Yorùbá target term OK (no. 5) and its English source term.

Evaluation

Some of the newly devised terminologies are less than adequate. There are several interrelated problems but they will be discussed under four headings: inaccurate translation, faulty syntax, inadequate phonological treatment of loanwords, and the use of non-standard orthography.

Inaccurate Translation

The equivalent of 'Display settings' is given as *Fi ètò hàn,* literally 'show arrangement' with such subsections as *Kókó ọ̀rọ̀* 'Themes'; *Ètò àwọ̀* 'Colour schemes'; *Aago ti ntọ́jú agbára* 'Power saver clock'; *Ifarahan ọ̀rọ̀ sẹ̀ẹ̀li* 'Cell info display'; *Igba ítaná ẹ̀yìn* 'Backlight time' and *Ìmọ́lẹ̀* 'Brightness'. These subsections show that 'Display settings' is not a clause but a noun phrase. *Fi ètò hàn* is therefore not an appropriate equivalent, but rather *Ètò Àfihàn,* 'the arrangement (= settings) of display'.

'Switch off!' is incorrectly rendered as *Pa iná rẹ́!* meaning 'erase the lights'. The terminologist probably mixed up the Yorùbá designation for 'switch off lights' (*pa iná*) and 'erase' (*pa rẹ́*). A better alternative would have been *'Pa fóònù'* 'switch off the phone'. 'Chat' is also rendered inappropriately as *Iwiregbe,* (<*ì-wí ìrégbè*) literally, 'saying nonsense'. Though 'chat' is a shortened form of 'chatter', which means 'to talk or converse rapidly and informally about unimportant things', it has been terminologized in English to describe an informal exchange of messages in real time with other computer users. Rendering the GPL 'chat' (=chatter') as *ìwírèégbè* is apt 'but not of the technical word 'chat'; *Ìtàkùrọ̀sọ* 'just talking' would be a better alternative.

The problem with *Ọ̀rọ̀-ìfiránẹ́* is the use of the wrong nominalizing prefix. ***ì-*** tends to be used for abstract processes and *à-* for objects (Bamgbose 1992). For example, 'categorization' is *ìpínsísọ̀rí* while 'categorized' is *àpínsísọ̀rí*. *Ìsọdorúkọ* is the equivalent of 'nominalization' and *àsọdorúkọ*, of 'nominalized form'. So, *ọ̀rọ̀-ìfiránṣẹ́* does not signify 'words that are sent', i.e., 'messages' but 'words of sending'. Therefore, all terms containing the term *ọ̀rọ̀-ìfiránṣẹ́* as the equivalent for 'messages' are inaccurate.

Faulty Syntax

By faulty syntax is meant the use of structures that are aberrant by Yorùbá syntactic or morphophonemic rules. *Ká kúrò* (Clear), is a clause without a mandatory object. *Ti eé* (Done), *N ii* (Opening), and *ofo* (Empty) are clauses without objects. The correct forms should be *Káakúrò, Óti eé, Óń ìi* and *Óofo*. These examples may seem symptomatic of an attempt to make the target terms fit as closely as possible in form with the English source terms which are only one word long. However, there are similar source terms for which correct Yorùbá equivalents have been found. They include *O ti fipamọ* (Saved), *Wá a kiri* (Search), *Paarẹ́* (Delete) and *Dàákọ* (Copy).

Non-Indigenization of Loan Words

Another problem is the inadequate phonological treatment of loan words. A recipient language has several means of indigenizing loan words. They include sound substitution e.g. by replacing a foreign consonant or vowel with the corresponding or closest indigenous one or restructuring e.g. vowel epenthesis to resolve a consonant cluster or tone insertion/deletion (Awobuluyi *et al*, 1988). Borrowed terms could also be morphologically and orthographically integrated (Bamgbose, 1987). Yorùbá neither allows consonant clusters nor closed syllables. *SIIMU* for SIM (card) is appropriately indigenized. The monosyllabic word is first of all re-interpreted as disyllabic, and an epenthetic vowel added to resolve the closed syllable. However, *Profaili* is not a properly indigenized loan. The preferred structure of the first syllable is CV-CV-CV-V-CV, i.e. *púrófáìlì*. *Netiwoki* is likewise not properly indigenized, in that it also is expected to have five syllables, with tone marks identical to *púrófáìlì* above, i.e. HHHLL (cf. Ufomata, 2004).

In Table 3, we find some source terms for which no equivalents were devised. These include Snake Xenzia, Bounce and Nature Park. It may be the case that these are treated as proper names. However, the rationale behind rendering Service com. Editor as *Olùàtúnkọ service com.* is unclear, since 'service' is a common noun. It is also unclear what 'com.' stands for

Non-Standard Orthography

Yorùbá is a tone language, that is, pitch variation conveys lexical information. The *1974 Revised Official Orthography for the Yorùbá Language* requires that all sounds be represented; and syllabic sounds (vowels and nasals) be tone marked. Terms spelt without the required tone marks include *Yan-an* (Select), *Pada* (Back), *Jade* (Exit) *and Ohun a kọ ranṣẹ* (Sent items). These terms should have been spelt *Yàn-án*, *Padà*, *Jáde* and *Ohun a kọ ránṣẹ́*. In 7, *Netiwoki n sise lowo* (Network busy) no subdots are used. One vowel is missing in the last word of the complex term *Aago ìẹ́jú-aya* (Stopwatch) while redundant vowels are included in *Òhùnkà ọ̀rọ̀ ìfiranṣẹ* (Message counter). The first should be spelt *Aago ìẹ́jú-àáyá* and the other *Òǹkà ọ̀rọ̀ ìfiranṣẹ*.

There are, however, many terms that contain the same graphemes that are correctly spelt. *Ọ̀rọ̀-ìfiránṣẹ́,* for instance, contains subdots, and tone marks appropriately placed. Two possibilities suggest themselves as reasons for the inconsistent use of correct orthographical symbols. The first is that the linguists developing terms for NOKIA have varying degrees of expertise in Yorùbá. The second is that having to punch several keys to write one letter became so much of a burden for the terminologists that they took the easy way out and chose the closest representations of Yorùbá written symbols, even though they knew it was not appropriate.

The issue of ‘problematic spelling’ in Yorùbá is quite common and is of concern to scholars. In message 350 posted on http://www.quicktopic.com by BisharatNet, the name and institutional affiliation of the first author of a book on Yorùbá speech synthesis is garbled. ‘Ọdẹ́tunji A. Ọdẹ́jọbí’ of ‘Ọbáfẹ́mi Awólọ́wọ̀ University, Ilé-Ifẹ̀’ comes out as ‘dtúnjí A. djbí of báfmi Awólw` University, Ilé-If`’. In a subsequent message, (message 352, posted on the same day, at 8.57 AM ET) BisharatNet attributes this to this site being Unicode-challenged.

Not all Yorùbá Unicode keyboard layouts produce the same sequence of Unicode code points, e.g. in Unicode the letter **ẹ̀** can be represented as <U+0065 U+0323 U+0300>, <U+0065 U+0300 U+0323>, <U+1EB9 U+0300> or <U+00E8 U+323>. These are canonically equivalent and superficially display the same. However, while the sequence <U+00E8 U+323> can automatically be changed to an upper case letter, <U+1EB9 U+0300> cannot.

POSSIBLE DIRECTIONS AND TIMELINES

The blemishes notwithstanding, the option offered to speakers of some Nigerian languages of using Hausa, Igbo and Yorùbá on the NOKIA 2310 is an important step in the right direction. It is one way of providing institutional support for indigenous languages through development of ICT products and services in Nigerian languages. This is important in Nigeria and other developing countries of Africa where the majority of the population are illiterate or only literate in the local languages. This momentum however must be sustained and as consumers overcome the initial excitement of being able to use their mother tongues in different media, they need to be encouraged to ask more, not less, of providers of ICT products. With such a sizeable market (according to http://www.budde.com.au, Nigeria is one of the biggest and fastest growing telecom markets in Africa), policy makers and activists are well placed to involve producers of ICT products in the research and other activities needed to make African languages to amenable to use in ‘digitized formats’. This affects the discourse behavior of speakers of African languages as more written texts will be generated in digitized formats when they are easier to compose in indigenous languages.

The presence of Yorùbá and other indigenous languages on the modern communication gadgets will have a significant impact on social interactions in these languages among the users. The first issue is that of access. Those who are literate only in indigenous languages can compose text- and e-mail messages in their own languages.

Such a development sends a strong message about the value of indigenous languages to its speakers, especially the younger generation. Although Section 1 of the Nigerian *National Policy on Education* stipulates that one of the major languages: Hausa, Igbo, or Yorùbá is to be learnt by every Nigerian schoolchild in addition to their mother tongue, in the interest of national unity, schoolchildren have hitherto seen that English is the language of worth and utility. When they now notice that their language are used in these new media or they are able to use them in such media themselves, their attitudes to indigenous language can be positively affected and this may serve to arrest language shift and promote language maintenance in Nigeria.

There is also an effect on international communication. For example, Yorùbá is spoken mainly in South-western Nigeria but there are indigenous populations speaking varieties of Yorùbá in Togo and Benin Republics. These sections of the global village already have access to indigenous literature, news publications and broadcast media. The availability of information on the internet in Yorùbá as well as the ease of uploading Yorùbá-medium information that is not distorted or garbled will further increase social intercourse in this African language. Inability to use English well need not result in isolation from the global village.

Some blemishes have been pointed out in some of the terms used in the NOKIA 2310 cell phone. It is expected that subsequent versions of this phone, and its more upscale models will present more adequate terms in the three major indigenous languages of Nigeria. This will not happen if the term developers do not get feedback on the acceptability or otherwise of the terms they have created. Stakeholders, especially associations for the study of indigenous languages need to commend manufacturers of telecommunication products who are showing some commitment to indigenous languages and offer their expertise to improve on the efforts of these companies.

Telecommunication service providers should also be encouraged to provide indigenous-language interaction with their customers. Customer service responses, e.g., 'The number you have dialed is not available at the moment. Please try again later' should be available in the most widely spoken languages. Customer service personnel should be able to present solutions to problems in a language the enquirer would understand. These recommendations can be kick started by policy, but service providers would be willing to comply if the recommendations make economic sense. As Africans desire and demand products in their local languages, there will be ready suppliers. While regulatory bodies can encourage telecom service providers to make indigenous language responses available in phases but at any rate within a two-five year period, indigenous language users should be encouraged to patronize such services as they become available.

In the final analysis, the survival of indigenous languages is too important to be left to market forces, the language that a people group speaks is a crucial part of who they are. Some protectionist policies must be put in place to help African languages hold their market share in the global linguistic economy. One must learn from the attention now being paid to "heritage languages" in the United States. A lot of research and documentation attention is paid to the languages of indigenous Americans and immigrants but typically, only after these languages have almost become extinct. The interventionist policies should start immediately as a Corporate Social Responsibility strategy.

One such strategy is Microsoft Corporation's terminology development efforts for three major Nigerian languages. *Language Interface Pack: Yoruba Glossary* was released on Thursday, 11 December, 2008.

Language Interface Pack: Yoruba Glossary is a 199-page document published by Microsoft and Alt-I. Microsoft Corporation with headquarters in Redmond, Washington is a company which creates computer software while ALT-I is a research and development agency with headquarters in Ibadan, Nigeria that aims to appropriate various aspects of human language technology (HLT) such as speech synthesis, speech recognition, machine translation for human—human and human—machine communication in African languages. The glossary proper consists of 196 pages of terms created or adapted for use in computing, especially the Microsoft programs. Each page has three columns: 'Definition', 'English source term' and 'Yoruba target term'. A quick review of the *Glossary* shows that the term creation strategies employed are of the kind that have earlier on been described in this chapter. Terms created by composition include *àtòkọ ìdína pàǹtí* for Blocked Senders List, *abèjì* for binary, and *ẹ̀dà ayẹ̀wò* for beta version. Terminologization has produced such terms as *àbọ̀ábá* for backup and *òpó* for axis. There is a greater recourse to translingual borrowing ('menu' is *mẹ́nù,* 'media' is *mídíà*), and no Yorùbá equivalents are proposed for initialisms. Therefore API is *API,* CD is *CD.*

The shortcomings in *Yoruba Glossary* are also similar to those identified in the terms created for NOKIA 2310. There are a few cases of false synonymy created as some distinctions made in source terms are not retained in the target terms. For example, *Àfikún* is the proposed equivalent for add-in (defined as 'a supplemental program that can extend the capabilities of an application program') and for add-on (defined as 'a device that is traditionally added to a base computer system to increase functionality, such as audio, networking, graphics or SCSI controller'). If add-on refers to the same concept as add-on device, also defined as 'a device that is traditionally added to a base computer system to increase functionality, such as audio, networking, graphics or SCSI controller' the term being proposed for add-on device *(ohun-èlò àrídìmú aláfikún)*, should also have been proposed for add-on. There are a few spelling errors. For example, the equivalent of About, is given as *aèrànwó òfin àdàkọ* and that of accessibility aids is rendered as *aerànwó ìgbàwọlésí.* The first word in these two terms should have been spelt *aèrànwọ́*. Similarly, the term for message is wrongly spelt as *iṣé* rather than *ię́*.

The proper spelling of words in African languages is still an ongoing challenge. Fakinlede (2003) suggests that the spelling should be 'standardized', in a way that obviates the use of tone marks and subdots. Standardization here seems to mean 'Europeanize' and this would create fresh problems. Difficulties in spelling using the standard orthography create problems during internet searches. In searching for a term like *bàm̀bàm̀* in an online dictionary, typing the word 'bambam' or 'bàmbàm' will not lead to the entry *bàm̀bàm̀*, neither would 'oteere' lead to *ọ́tẹ́ẹ́rẹ́*.

The possibility of designing symbols that can represent the sound distinctions needed but with fewer strokes of a keypad needs to be explored. If 'O' with a subdot and high tone mark is available, a keyboard can be customized to type the symbol and reduce the tedium of striking three keys to produce one symbol. This will encourage those embarking on translation projects or fresh production of content designed to be digitally transmitted in African languages.

SUMMARY

This chapter has reviewed terminology creation on the NOKIA 2310 brand of cell phone. Much has been achieved but there is still much to be done in the areas of terminology refinement and software development for the proper representation of the orthographies of African languages. Terminology standardization will also be necessary to harmonize the results of uncoordinated term creation projects which may be undertaken in the near future. This process produces consensus agreements between interest groups on specifications and criteria to be applied consistently in terminology and it involves a choice between competing terms in order to facilitate interconnectivity and interoperability (Drame, 2006, p.23), which is crucial all communication but much more so in .

In the meantime, people need to be aware of what possibilities/facilities are available for them to use their mother languages as windows of opportunities to the world. We should not despise this day of small beginnings, of being able to send an intelligible text message or e-mail in the Yorùbá language on an inexpensive cell phone.

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KEY TERMS AND DEFINITIONS

Cell Phone: A small handheld telephone operated through a cellular radio network. Also known as cellular phone, mobile phone, and in Nigerian usage, 'handset'.

Composition: The creation of new terms in a language by combining smaller units (morphemes, words or phrases) to create new expressions denoting foreign objects or concepts.

Digital Communication: The process of sharing ideas, information, and messages with others in a particular time and place with the aid of digital devices like cell phones, computers and similar electronic devices.

Globalization: The emergence of a global society in which economic, political, environmental, and cultural events in one part of the world affect people in other parts of the world due to advances in communication, transportation, and information technologies.

Indigenous Language: A language native to a country and spoken as a mother tongue by some of its indigenes.

Terminology: Specialist or technical terms used in a special purpose language (SPL) to facilitate unambiguous communication in a particular area of knowledge.

Terminologization: The creation of specialist terms by taking GPL words already in existence in the language and matching them to source terms expressing/denoting foreign concepts, thereby giving them specialized meanings which they do not express in the GPL.

Translingual Borrowing: The creation of target terms by adopting or adapting words from a foreign language.

Yorùbá: A Niger-Congo language spoken in South-Western Nigeria by a people group of the same name.

Section 4

Discursive Behavior in Virtual Learning

Chapter 37
When the Online Conversation is Prompted

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ABSTRACT

This discussion reviews discourse in three sets of data drawn from online forums for nursing, applied linguistics and nursing assistant courses. Findings are presented from the application of two measurement tools to postings attracting peer responses: SOLO, or Structure of Observed Learning Outcomes (Biggs & Collis, 1982; Schrire, 2006; Rourke & Kanaka 2009) and the Practical Inquiry Model of Cognitive Presence (Garrison et al, 2000). Since assessment of online writing is an issue that often concerns teachers using asynchronous conferencing in blended classes, the authors also examine changes in propositional density using CPIDR (Covington, 2007) and analyze vocabulary levels with a Vocabulary Profiler to see how students integrate the appropriate technical and professional or academic lexicon that presumably has formed part of their learning.

INTRODUCTION

Perspective and Objectives

This discussion explores the variety of task-oriented, prompted writings in asynchronous online forums that are part of blended or hybrid classes for students in nurse aide, nursing and applied linguistics programs. Our illustrations sample three sets of data drawn from online forums designed for each individual class:

Set A: A set of 100 brief evaluative commentaries by nursing students at a U.S. community college, predominantly first-language English, about an internet-delivered curriculum with multimedia on communication, collected across three semesters.

Set B: A set of 100 journal-like postings and peer responses by 50 students at a U.S.

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university, first- and second-language English, to readings about language experiences in a range of cultural settings, collected across three semesters.

Set C: A set of 100 journal-like postings by nurse aide students at U.S. community college, second-language English, on personal experiences in clinical settings, collected across three semesters.

Since all three of the datasets are focused on educational purposes for their respective courses, we first highlight current constructs of social and cognitive presence and critical thinking in online instruction. Secondly, we identify general features of postings that attracted additional responses by peers. Postings were seen as falling into three broad categories:

1. Those which were strongly content-based, and provided evaluative information at a particular level of cognitive skills or abstraction,
2. Those which seemed primarily to signal the writer's desire to affiliate with another writer, via self-revealing comments or social commentary in the postings, and
3. Those which combined the two categories: that is, they were content-based and evaluative in orientation, and also included some degree of social presence.

Thirdly, we demonstrate the application of two measurement tools to postings attracting peer responses: SOLO, or Structure of Observed Learning Outcomes (Biggs & Collis, 1982; Schrire, 2006; Rourke & Kanaka 2009) and the Practical Inquiry Model of Cognitive Presence (Garrison et al, 2000). Since assessment of online writing is an issue that often concerns teachers using asynchronous conferencing in blended classes, we draw on two additional tools to examine changes in propositional density (using CPIDR, Covington, 2007) and to profile vocabulary levels (using VocabProfiler, www.lextutor.ca) to see how students integrate the appropriate technical and professional or academic lexicon that presumably has formed part of their learning.

Our goal is to extend understanding of the online discourse composed by adult and young adult online writers in prompted discussions and interactions that are required for classes. Our objective is to generate and analyze initial findings for our research question: Can empirical analysis of prompted writing in class-required online forums demonstrate that this writing supports critical thinking skills, improves fluency, extends content mastery, or enhances professionalization?

Highlights from the Research Literature

Electronic discourse (Davis & Brewer, 1997) is language behavior that can be analyzed and evaluated from a number of perspectives, including those perspectives which focus on social interaction and those which focus on cognition or language structures. In this discussion, we emphasize cognition, because these forums were developed for their respective courses to promote content rehearsal, synthesis, and evaluation. There are a number of different models for evaluating asynchronous discourse; Meyer (2004) looks, for example, at four different frames for analysis, noting that each framework captures different aspects. Bloom's Taxonomy of Educational Objectives (Bloom & Krathwohl, 1956), for example, may have a common emphasis on cognition and evaluation with the four-stage processing model of cognitive presence put forward by Garrison, Anderson and Archer (2000), but they assess different aspects of thinking. Bloom's Taxonomy for the cognitive domain is a hierarchy used to assess how, in this case, a writer demonstrates knowledge, comprehension, application, analysis, synthesis and evaluation, in that order. Recent analysts have chosen to adapt Bloom's Taxonomy to code electronic discourse. Dunfee et al (2008)

Figure 1. Practical inquiry model

draw on a framework for assessing higher-order thinking in online asynchronous discourse that collapses the taxonomy into three components: data gathering (Bloom's knowledge and comprehension), data analysis (Bloom's analysis and application), and conclusion drawing (Bloom's synthesis and evaluation). They claim this reduced taxonomy, which has been replicated in other studies, such as Plack et al (2007) is reliable and well-suited for evaluating reflection and cognition in electronic discourse.

Establishing grounds for the assessment of higher-order or critical thinking has been a focus of communications scholars using the Community of Inquiry model first promoted by Garrison, Anderson & Archer (2000). Garrison & Arbaugh (2007) credit Henri (1992) with identifying the importance of cognitive presence, leading to puzzlement, information exchange, connecting ideas, and applying new ideas as indicators of cognition (pp. 158-159). The Community of Inquiry model incorporates cognitive presence, teacher presence, and social presence, all of which have been studied a great deal. Indeed, Garrison & Arbaugh claim that the notion of "social presence must move beyond simply establishing socio-emotional presence & personal relationships. Cohesion requires intellectual focus…." (p. 160).

Ultimately, they claim, the construct of cognitive presence derives from educational philosopher John Dewey and his emphasis on practical inquiry (p. 161). Garrison et al's Practical Inquiry model has a 4-stage process involving inquiry, reflection, integration, and resolution; the last is "the most challenging to study and develop in online courses". Figure 1, taken from Garrison et al (2000) and reproduced in Garrison & Arbaugh (2007, p. 161) depicts how students develop ideas through exploration.

A major factor affecting the ability of the student writer to arrive at some kind of cognitive resolution is apparently the prompt or triggering question, and whether the group or the individual is asked to find resolution. The Practical Inquiry Model is, however, keyed to group interaction: "if there are not shared goals requiring a collaborative solution or artifact" then there will not be a group consensus and though there may be individual solutions "there will not be substantive discourse" (p. 162). Not all agree with this last point, however.

Although Garrison, Anderson, and others have worked to develop and refine constructs of cognitive, teacher, and social presence in online discourse, a number of scholars and researchers contend that cognitive presence has not yet been demonstrated or sufficiently evaluated. Earlier, Bullen (1998), for example, had found "limited empirical support" that computer-suppported conferencing leads to higher level thinking (p. 7). More recently, Rourke & Kanuka (2009) have claimed that students do not learn deeply in an online Community of Inquiry, or at least no empirical studies have demonstrated that they do. In a review of 252 reports keyed to the Community of Inquiry model, they find that only five studies have a measure of learning, and most analyses are keyed to student reports of self-perception.

Rourke & Kanuka review three ways to measure "deep and meaningful" learning, beginning with SOLO, or Structure of Observed Learning Outcomes originally developed by Biggs & Collis (1982). This is a hierarchy of five learning outcomes, which Rourke & Kanuka summarize (pp. 36-37) as: *extended abstract thinking*, in which "a coherent whole is generalized or reconceptualized at a higher level of abstraction" (p. 36); *relational*, which integrates various components into a whole; *multistructural,* in which "Several relevant aspects of a domain are presented but they are not integrated;" *unistructural* thinking, which focuses on only one aspect of a cognitive domain, and *prestructural,* where the thinking is seen as "distracted" or "irrelevant" (p.37). The second way that Rourke & Kanuka recommend to measure deep learning is a concept mapping model that supports a pre- and post-comparison of how learners map content, by identifying content nodes and connections among them. A third way to measure learning is what can be called a "test blueprint": a matrix of topics and cognitive levels that correlate with other taxonomies of higher-order thinking (p. 38). Their primary concern is that their review of studies showed that most students remain at the exploration stage and that most assessment of student activity consisted of marks for participating as opposed to collecting evidence of learning (p. 42). While we cannot promise a solution to this dilemma, we do hope to add to the discussion by reporting on the application several techniques to our data sets that may be useful. Two of these are exemplified in a number of studies; because of our interest in content analysis techniques combined with linguistic approaches (Davis & Thiede, 2000; cf. Kern, Ware & Warschauer, 2004), we, like Schrire (2006), apply the SOLO taxonomy and the Practical Inquiry Model for cognitive presence, but we then augment those classificatory schemes with two additional, more language-based techniques, CPIDR and Vocabulary Profiler, discussed below.

Schrire applies content analysis at different levels: forum, threads, messages, exchanges and rhetorical moves in order to integrate interactive, cognitive and discourse features of computer-mediated discourse. She draws from a review of 15 instruments by DeWever et al (2006) that claim to measure cognitive and metacognitive knowledge and skills, critical thinking, knowledge construction, cognitive presence, perspective taking, and learning strategies. She combines quantitative and qualitative methods to look at the macro-level thread patterns (p.52) and then conducts case studies of dialogic learning through messages. She categorizes the messages in her data set by a. Bloom's taxonomy; b. the SOLO taxonomy; and c. the Garrison et al 4-phase Practical Inquiry Model for Cognitive Presence, because she is interested in the complexity of a message in addition to word counts.

In our analysis we follow Schrire (2006) in rating the complexity and potential for higher-order thinking in forum postings using the SOLO taxonomy and the Practical Inquiry Model; in addition, we add two tools, the Computerized Propositional Idea Density Rater (CPIDR), and a Vocabulary Profiler. The CPIDR is a computer program to determine the propositional idea density (P-density) of an English text automatically on the basis of part-of-speech tags (Brown et al., 2008; Covington 2007). The construct of propositional idea density is that propositional density can be approximated by the number of verbs, adjectives, adverbs, prepositions, and conjunctions divided by the total number of words in the text. Brown et al (2008) claim that idea-density is involved in the understanding and remembering of texts and identify experiments which have related idea density to readability, memory, and the quality of students' writing, such as Kintsch, 1998 and Takao, Prothero & Kelly, 2002. As noted at the Lextutor website (http://www.lextutor.ca), Vocabulary Profilers break texts down by word frequencies in the language at large. Most … are based on Laufer and Nation's Lexical Frequency Profiler, and divide the words of texts into first and second thousand levels, academic words, and the remainder or 'offlist'.

Laufer & Nation (1995) is a study which validates the Lexical Frequency Vocabulary Profiler application for research on vocabulary acquisition and measurement of lexical richness in texts.

Vocabulary profilers categorize and measure words in a text against major vocabulary lists. Nation & Waring (1997) identify the major lists of high frequency words and word families *(joy: joyful, joyous)*, beginning with the 2000-word General Service List (West, 1953; cf http://jbauman.com/aboutgsl.html). This list is typically divided into the first thousand most frequently used word families, and then into the second thousand. The Academic Word List (Coxhead, 2000) includes 570 word families that are not in the previous list but which nonetheless are used frequently in academic books. Profiling vocabulary in a text can give an estimate of its level of writing and identify words the writer needs to master (Cobb, 1999); the Vocabulary Profiler we use in this study can be found at Cobb's website, *Compleat Lexical Tutor* (http://www.lextutor.ca/).

DATA ANALYSIS

Set A. We begin with Set A, postings and responses in a mandated online discussion for the online communications module we devised for Introduction to Nursing, the entry-level course in the academic sequence at a large North Carolina community college. The course was a hybrid or blended class, combining internet-delivered materials and an exclusively-online module with face-to-face lectures, and clinical experiences in real-world settings. The online module was organized to present scenarios in text, graphics, and multimedia, following state and national standards, using materials for culturally sensitive dementia communication as care whose development and evaluation has been supported by the National Alzheimer's Association (Davis, Russell-Pinson & Smith, 2008; Davis & Smith 2009). Our example is drawn from one class of 45 students who were required to take part in online discussion, using this prompt, designed to elicit critical thinking by Smith, the second author:

Discuss the communication module. Respond to one of the discussion topics or begin a discussion of your own. At least one entry is required and it will be rated by classmates or facilitators.

Suggestions for a discussion topic:

I was surprised to learn.......

or

I plan on using ....

Students were not required to reply to each other; accordingly, we tabulated the 17 postings that did attract responses, reviewing them against the SOLO model and against Garrison et al's Cognitive Presence model, and noting whether the writer was first-language English (L1) or second-language English (L2). The results are shown in Table 1. In this table, SOLO learning outcomes are arranged in a hierarchy ranging from prestructural (diffuse ideas) to unistructural, multistructural, relational – in which the writer displays some kind of relationship among various structures – to extended abstract, in which integration and a

Table 1. Postings attracting responses in the nursing module

Language	Number of Replies	SOLO: 5 learning outcomes	Garrison et al: 4 stages	Special feature (replies at Solo level 4, combined L1/L2, unless noted)
L2	2	4	4	Culture reference elicits L2 peer echoes
L2	3	5	4	Self-disclosure, home culture, elicits additional L2 cultural information
L1	5	2>3	2>3	Peer's disagreement with lack of detail elicits revision, some improvement
L1	3	4	4	Personal plans elicit peer echoes
L1	2	4	4	Personal plans elicit peer echoes
L1	3	5	4	Future personal activities elicit echoes and new information at SOLO level 5
L2	5	4	4	Personal plans elicit L2 peer echoes
L1	2	4	4	Personal plans elicit peer echoes
L1	3	4	4	Personal plans elicit peer echoes
L1	2	3	3	Peer echo 1 at SOLO 3, 1 at SOLO 4
L1	2	3	4	Peer echo 1 at SOLO 3, 1 at SOLO 5
L1	3	4	4	Personal plans elicit peer echoes
L1	2	3	3	Peer echoes all at SOLO 3; affiliative
L1	2	4	4	Personal plans elicit peer echoes
L2	3	4	4	Personal plans elicit peer echoes
L1	4	4	4	Personal plans elicit peer echoes
L1	3	4	4	Personal plans elicit peer echoes

higher level of abstraction is attained. Garrison's hierarchy is process-based, moving from inquiry, reflection on integration, to resolution. Entries that attracted responses elicited those responses at the same level either of learning outcome or process; self-disclosure of something personal or cultural elicited replies that echoed the concern or offered similar personal and cultural information.

Set B. Set B was composed of advanced undergraduate and graduate students enrolled in successive sections of a course given at a research university in North Carolina, focusing on combining linguistic analysis with healthcare issues. The course was designed as a blended offering, alternating face-to-face meetings with online synchronous interaction using CENTRA© platform (www.centra.com), and a required weekly discussion forum. In this forum, one posting and one peer response was mandated; postings were expected to take place either just before or just after the weekly class meeting either face to face or on CENTRA. The weekly prompts created by the instructor (Davis, the first author) were designed to move students from anticipated levels of 3 using both SOLO and Cognitive Presence to at least the next level, since these were advanced students. Assessment was done holistically on a three-point scale, where 1 was low: (1) Did you participate as required (1-3 points)? (2) Did you participate soon enough to allow your peers time to respond (1-3 points)? (3) Did you present your peers with substantive content (1-3 points)? Timing was important: new prompts or questions were posted 5 days before class and threading typically occurred only within the period after the question was posted, as students were requested to post prior to the class. If people posted on the day of or after the class met, they missed their window to attract any threaded responses.

Table 2. Application of CPIDR to two students' online postings

topic	A- propositions	C-propositions	A- words	C-words	A-idea density	C-idea density
a	111	130	209	238	0.531	0.546
b	188	77	357	147	0.527	0.524
c	80	65	165	121	0.485	0.537
d	240	101	466	184	0.515	0.549
e	31	64	68	110	0.456	0.582
f	44	64	92	129	0.478	0.496
g	78	107	146	180	0.534	0.594
h	190	70	343	145	0.554	0.483
AVE	*120.25*	*84.75*	*230.75*	*156.75*	*0.51*	*0.538875*

Since responses, by and large, met the minimum yardsticks using SOLO (Level 4, relational) and Cognitive Presence (resolution) we next examined the differences between the postings of the first person in a particular section who typically received the highest points for an A on the discussion forum component of the class, and those of the first person in the same section who received a C. Here, we first applied the CPIDR measurement tool for idea and propositional density, assuming that greater density suggested greater cognitive presence and abstraction, and higher-order thinking (Tsai 2009). Density is based on the number of verbs, adjectives, adverbs, prepositions, and conjunctions divided by the total number of words. Table 2 reviews the performance by the two students, tabulating number of propositions, number of words, and idea density.

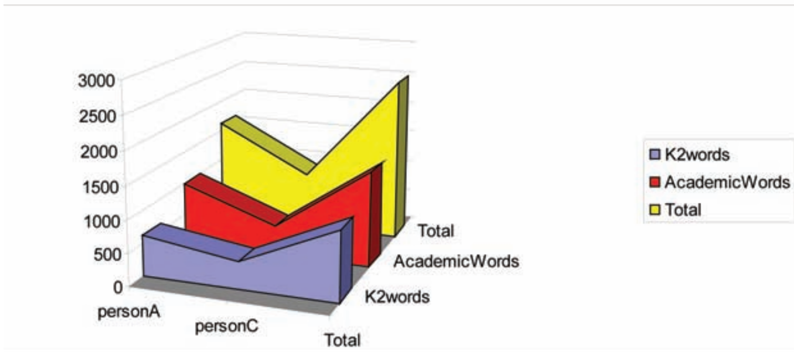
The difference between the two students for average number of propositions and average number of words, as measured by a chi-square using Fisher's exact test, was significant at p=0.004. However, idea density was not significant. Accordingly, we examined the kinds of words the two students were using, focusing on usage frequencies for words and word families from the second thousand wordlists and the academic wordlists used in Lextutor's *Vocabulary Profiler*. A vocabulary profiler analyzes texts into the thousand words most frequently used, then the next thousand (the 'second thousand'), words not in either list which are frequently found in academic texts, and other words (http://www.lextutor.ca/vp/research.html). The A-student averaged nearly a third more propositions and words; the A-student also used words more frequently from the second-thousand and the academic word lists as shown in Figure 2.

Table 3 displays the details of the findings.

A chi-square test using Fisher's exact test showed the two-tailed p-value was <0.0001: the differences in lexicon between the two students were indeed significant.

Set C. The course sections for Nurse Aides had slightly different academic expectations. As described in Davis, Russell-Pinson & Smith (2008), the nurse aide course is a blended entry-level healthcare worker training course. It combines online materials and interaction, multimedia, clinical training and face-to-face lectures and hands-on skills training in personal care, such as bathing. Many students taking a course to prepare them for certification exams to become certified nurse aides enter training with little or no experience with academic college or university classwork. Some will have left high school early – 18% of

Figure 2. Second thousand and academic words for person a and person c



the US adult population lack a high school diploma – and obtained a GED (General Education Development) certificate that certifies "the high school–level academic achievement of national and international non–high school graduates" (ACE 2008). Our focus for this discussion is on the second-language students who currently make up, at least in North Carolina, at least 25% of each course section.

To see if the training program and its required online writing (three times weekly for 5 weeks) helped improve English fluency as well as presenting the required content and skills mandated for certification, we examined the series of journal entries composed by second-language newcomer students. For this analysis, we used CPIDR and Vocabulary Profiler. Since many of the prompts for the entries asked students to review technical materials, we sampled only the first two and the last two entries. These four entries were keyed to recounting personal experiences and aspirations. The first two entries asked students to summarize why they wanted to become Nurse Assistants and to identify skills that would be needed for their success in the course. The last two entries asked for a recount of their first week in clinical experience with real patients, and for highlights of their experience during the second week of clinical. All

Table 3. Second thousand and academic words for person a and person c

A- K2000	C-K2000	A- AWL	C- AWL
5.88	3.29	11.76	6.58
6.06	4.08	6.89	6.8
5.29	6.4	6.47	3.2
4.9	5.43	7.89	3.26
5.88	1.79	2.94	0.89
5.21	6.02	17.71	2.26
10.32	5.43	13.55	4.89
7.12	1.37	12.82	9.59
AVE 6.3325	***4.22625***	***10.00375***	***4.68375***

Table 4. Averages, L2 extemporaneous writings, pre and post course

pre-ideas	pre-words	pre-density	post-ideas	post-words	post-density
7.785964591	16.30189255	0.4636127	9.5967559	20.7499454	0.46784938

four entries were composed in the online package, rapidly and extemporaneously during time periods scheduled for computer use.

While change was apparent, particularly in the increase in the amount of words, as seen in Figure 3, so that we could say that trends were beginning, no feature of idea or propositional density was significant.

However, the *kinds* of words used for extemporaneous recounts of experience were significant: nurse aide students increased their use of both academic and technical/medical vocabulary as analyzed by Vocabulary Profiler. Using Fisher's exact test, the two-tailed p value was p=<0.0001. Figure 4 displays the increase over 20 weeks:

DISCUSSION

Online forums in educational settings often see the discussion initiated or triggered by teacher-created prompts and questions, designed to elicit an initial posting from student participants. In our three sets of data, students in only one set were mandated to reply to peers, yet peer replies were presented by roughly a third of each set of students. Accordingly, we sought to identify characteristics of cognitive presence or critical thinking in postings that attracted replies from peers, in order to begin to consider whether postings with increased idea density, greater abstraction and integration, and other signals of critical or higher-order thinking might also be attractive to other students.

Students writing entries that attract replies in the Nursing course (Set A) personalize their posting in some way with a detail suggesting their personal evaluation, their affect, their experience, or their stance on a topic. In short, their writing summarizes what they feel or think, as well as what they plan to adapt for their own future use. These entries offer some kind of brief rationale for why they have made such choices, in a way that suggests that their entry derives from reflection and integration of course content as an aspiring professional as well as a caring person. There are many reasons for a student to show a personal connection to the content they are discussing. Perhaps they have a relative or a client who has

Figure 3. Density of word, idea and proposition, pre and posttest for nurse aides

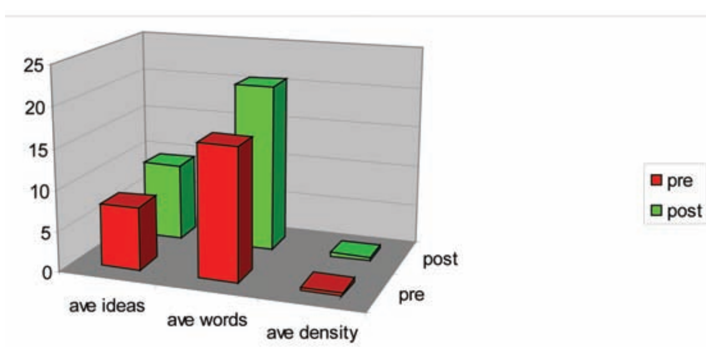
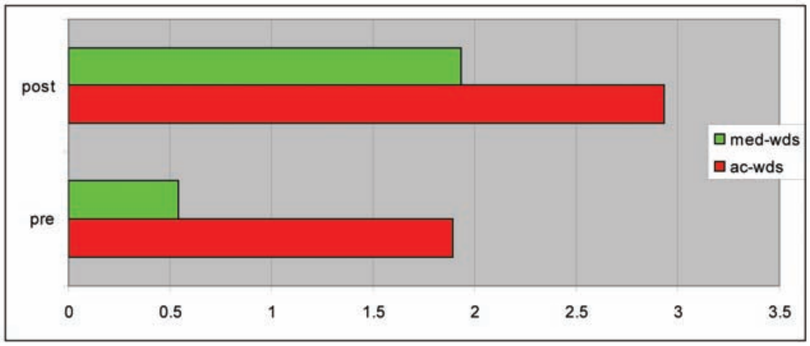


Figure 4. Academic and technical words, pre and post test for nurse aides



a medical condition similar to the content being discussed, in this case, dementia. Perhaps in their home country, they want to report on how a medical condition or care giving technique is handled differently from that which is discussed in the textbook or the online materials; perhaps they are simply surprised or delighted or horrified by learning something that is contrary to what they previously thought. Any of these features of personal involvement or personal reaction in a entry invites their peers to chime in (Davis & Brewer 1997) and offer a similar comment. That is, the peer can expand the content with something about their own experience or opinion. This lets the peer affiliate with the original writer of the entry, by presenting personal disclosure at a more abstract level.

In Set B, the combined graduate and undergraduate students were taking a course combining linguistics with health studies. If the writer (a) provided content at SOLO level 4 or 5, and asked a question, or (b) provided something 'new' and surprising such as information from another country or culture, and also included (c) a phrase or statement which could invite agreement or disagreement, they often got a string of responses. In both Sets A and B, some fine entries relating content structures at the SOLO level of 4 or 5 went unanswered: in most cases, these entries were late in arriving, leaving little or no time for peers to respond, or they presented only vague claims about future use (*"I am sure I will use these concepts in my future work*"). If the initial student posting was at level 2 or 3, unless it directly asked for feedback on a particular point from the group, that posting received no responses. In Set C, the training course for nurse aides, peer feedback was more typically oral, during face-to-face sessions using group discussion of events that had been examined in the online writings.

In general, we find the model for Cognitive Presence to be highly attractive, because it helps instructors focus on the need to combine content with interactivity. However, as Perkins & Murphy (2006) and Rourke & Kanaka (2009) have noted, it is a model designed to examine group interaction, and is not always suitable to assessing individual growth. Perkins & Murphy (2006: 305) comment from their study of transcripts of online contributions and interactions that students will vary in the proportions of specific critical thinking processes. We share with Rourke and Kanaka (2009) the concern about the need for some way to account empirically for changes in critical thinking both as process and as outcome which assumes growth in content mastery. CPIDR analyses of propositional and idea density, and profiling vocabulary, are two ways that let the instructor begin to measure growth and change.

CONCLUSION

In this study, we turned a critical eye on our own performance, collecting data from three sets of class-required online forums to see if their writing could support critical thinking skills, the improvement of fluency, an extension of content mastery or an enhanced professionalism.

In terms of professionalism, we found that students did indeed change in their use of a professional register, by using academic and technical terminology to explain themselves when writing rapidly online in extemporaneous discussions of experience. That change in the kinds of words used supports the inference of an integration of content or a content mastery. The increase in the number of propositions, the number of words, and the kinds of words being used argues a greater fluency in writing professional or academic English, and calls attention to characteristics of "A" writing as opposed to "C" writing in online forums. In addition, we found that student entries attracting attention and replies from other students were written at a high level of critical thinking, measured both for group and for individual by two prominent models, SOLO and Critical Presence Theory.

As teachers, when we began requiring online writing from our students, it may be that our initial expectations for online asynchronous writing were vague, or our prompts were too simplistic. In our early efforts to involve students with each other online, we often focused on the necessary social interaction at the expense of the need for both individual and group to increase critical and higher-order thinking. In earlier analyses of student changes in writing performance online (Davis & Thiede 2000), we were struck by the ways students modified their style and also increased their command of increasingly complex English structures. In our future studies, we will move to examine the ways we ask students to consider content as well as to promote interaction. We are exploring how constructing sequenced prompts for online writing allows us to build for interactivity, and to scaffold an increase in content density suggesting higher-order thinking. That is, we want each writing prompt to help students to identify and relate content structures in an increasingly abstract manner which will also elicit interactive feedback and social contact from peers. In this way, prompted online writing for classes can better complete a key component within a particular course of study.

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KEY TERMS AND DEFINITIONS

Cognitive Presence: In online environments, writers are said to need to feel a presence of others: social presence. Cognitive presence, as theorized by Garrison, Anderson and Archer, explains that online collaboration supports the way meaning is constructed.

CPIDR: Computerized Propositional Idea Density Rater. A computer program that analyzes the propositional idea density of a text in English keyed to automated analysis of part-of-speech tags.

Critical Thinking: A hotly-debated term in discussions of learning it most typically refers to how learners use reflection in making meaning and achieving more complex understandings of content of any kind.

SOLO: Structure of Observed Learning Outcomes, a taxonomy developed by Biggs et al to display how learners achieve levels of increased complexity and quality.

Vocabulary Profiler: A computer program that analyzes text to group words into categories by frequency of use and degree of technicality.

Writing Prompt: A question or statement which usually incorporates some feature of course content, and some notion of rhetorical situation, which asks the student to write a reply.

Chapter 38

A Corpus-Based Approach to Teaching English in Abstracts

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ABSTRACT

In the academic field abstract is the first genre that students need to become familiar with. Abstracts have been investigated on structure and language by Swales (1990), Bhatia (1993, 1997), dos Santos (1996), Cremmins (1982) and Day (1989) or by international organizations such as ISO and ANSI. Every academic journal presents its personal guidelines on how to write abstracts properly but generally, undergraduate students do not have a clear idea about how to write them. The main purpose of the present research study is to analyze the language used by authors with a pedagogical intent. The investigation is a corpus-based analysis setting out to highlight certain lexico-grammatical features specifically related to the 'research-process language'. The data are drawn from a corpus of 6 years of three international journals: The International Journal of Primatology, Mathematics and Computers in Simulation and Proteins: Structure, Function, and Bioinformatics.

INTRODUCTION

In the digital era, Corpus Linguistics has become a viable methodology and is no more a 'pseudo-procedure', as defined in the past by many situational linguists (e.g. Widdowson 2003). This new trend is especially favored by the advent of more and more powerful computers and huge quantities of digital information. Corpora, as huge depository of digital data, do belong to the modern scene of language investigation. Corpus Linguistics has been used to test an hypothesis or to shed light on new trend in language. In other words, in corpus-based studies the starting point is clearly defined in advance and the investigation is not likely to discover unexpected events, in this perspective, Tognini-Bonelli suggests that:

[Researchers] adopt a 'confident' stand with respect to the relationship between theory and data in that they bring with them models of language and

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description which they believe to be fundamentally adequate, they perceive and analyze the corpus through these categories and sieve the data accordingly. (Tognini-Bonelli 2001, p. 66)

On the other hand, in a corpus-driven approach specific evidence is provided by the corpus itself, the researcher posits himself in a more ‘neutral’ position and the methodological path can be described as “observation leads to hypothesis leads to generalization leads to unification in theoretical statement” (Tognini Bonelli 2001, p. 85).

Many studies, to date, have used computer corpora to examine rhetorical phenomena in language and also new developments in literature. Lately, the relationship between corpora and learning has been examined in a more detailed way by several scholars such as Gavioli 2002, Aston 2001 and 2002, Bernardini 2000, Tribble and Barlow 2001, and Flowerdew 2001 with the main intent to teach students grammar, idioms and phraseology.

BACKGROUND

The integration of corpora is viewed as a coherent course design step at university settings (J. Flowerdew, 2001; L. Flowerdew, 2001 and 2002; Curado, 2001). A corpus-based analysis of language tends to play a key role in specialized language organization and methodology, especially in English for Specific Purposes (ESP), as suggested by Flowerdew (2001, p. 71). In agreement with Krishnamurthy (2001, p. 83), two important aspects justify corpus integration in language program: “a corpus can give us accurate statistics” and “a corpus can provide us with a vast number of real examples”.

As a consequence, the need of Information Technology (IT) skills in students is absolutely essential. When students become more and more familiar with the foreign language they are acquiring and their level of curiosity increases in a certain way, linguistic change tends to happen together with the development of strong skills in the area of information technology, however, in this occasion, linguistic confusion may arise in the ESP learner. Students need to use technology as a useful tool for learning. Among several scholars, Thompson (2002) proposes an electronic perspective of Internet and self-access study, based on the combination of CALL (Computer Assisted Language Learning) and corpus-driven language learning. He also refers to the need for setting up corpus instruments in an effective EAP framework, since many language instructors still ignore corpus exploitation possibilities for language teaching and learning. This because some scholars (e.g. Widdowson, 2003: 102) consider corpora as a good source of genuine and potentially interesting materials, but still presenting a fundamental discrepancy between their textual nature and the communicative nature of language learning. This is further aggravated by the fact that many of the widely accessible corpora, open source or commercially distributed corpora, were created as tools for linguistic research and not with pedagogical goals in mind, with the result that their content and design does not necessarily meet pedagogical needs. Nevertheless, small and medium-sized corpora could be the way of meeting shared interests and demands in the academic setting (Tribble, 1998; Scott, 2000; Curado, 2002).

The present paper has focused in particular on a corpus-based analysis and on communicative task integration in the EAP context. Two main goals have been followed: building corpus information in the academic context, and structuring corpus exercises as writing a research article abstract.

Over the last thirty years there has been an increasing awareness of the importance of phraseology in English language description. When referring to the term ‘phraseology’, this is used broadly and refers to what Clear (1993, p. 277) meant as “the recurrent co-occurrence of words”. In other words, as suggested by (Hunston 1995) natural languages tend to have more or less fixed co-occurrence of linguistic elements, words are co-selected rather than being selected separately and they are constrained in specific grammatical structures.

This aspect is central to Corpus Linguists analysis, as a matter of fact, examining co-occurrences found in linguistic patterns have contributed to our understanding of pattern grammar (Hunston & Francis, 2000), phraseology (Sinclair, 1987; Sinclair, 1996; Sinclair, 2004a; Stubbs, 2001; Tognini-Bonelli, 2001) and semantic prosody (Louw, 1993; Sinclair, 1991).

On the other hand, phraseology also refers to the 'aboutness' of a text, this is of crucial interest to researchers, but it also presents new and exciting challenges for learners and teachers of English, as suggested by many authors McCarthy, 2005; Sinclair, 2003 and Stubbs, 2002. This paper also argues that greater emphasis should be placed on the learning and teaching of phraseology and applies a computer-mediated research methodology to introduce and promote these aspects in CALL. The present analysis is based on those works advocating the use of corpora and corpus linguistics in language learning in general such as Aston, 1997; Bernadini, 2002, Braun, 2005; Kennedy & Miceli, 2002 and Sinclair, 2004b and the use of concordancing Bernadini, 2000, Cobb 1997, Gaskell & Cobb 2004; Johns 1991, Sinclair 2003 and Stevens, 1991.

This study, following Bhatia's (1993) path for the practical application of genre theory, also attempts to offer important insights into the notion of genre, language structure and focuses on the specific needs of students who have just entered their academic discourse community. It presents a corpus-based study that aims at teaching undergraduate and postgraduate non-native English students, helping them to write an abstract and how to use language in an appropriate way. In the meantime emphasis is also on other goals, such as acceptance and recognition of the individual identity by the discourse community.

The communicative purpose of a genre-text (i.e. a typical representative example of a genre) cannot be determined by looking at the text in isolation. If we want to establish what people accomplish by means of a particular text, we have to turn to the context, the discourse community, in which the text is used.

Writing an abstract is not a trivial task at all, given that it does not allow redundancies and forces the writers to use a lot of compound words and specific language. Generally speaking, it is also mentioned that abstracts should be well written, brief, complete, and they should use clear words. In this perspective, however, non-native English students are bewildered and confused by the variety and the rhetoric of the academic conventions; set phrases and idioms, so well established in the language, are a kind of verbal shorthand for native speakers in which social context and the social purpose of communication are of basic importance. Investigating language unremittingly leads to investigate a well-defined scientific discourse community.

Texts [...] comprise much of the empirical foundation of society: they help to construct social reality. And textual analysis is a perspective from which to observe society: it makes ideological structures tangible". (Stubbs 1996, p. 20-21).

Therefore set of expressions and sentences like: *numerous studies have debated, this paper presents* or *the purpose of the present study* appear to be very frequent in the text of research article abstract, because personal perspective and value judgements in academic writing are basically constrained.

Abstracts are largely based on rhetorical activity, involving interactions between writers and readers. Authors seek to negotiate a credible account of themselves and their work by claiming solidarity with their readers, evaluating ideas and acknowledging alternative views (Hyland 2002); the language used is very often English. This is one of the obstacles that non-native speaker have to cope with. As already mentioned, many researches in linguistics have been concerned with phraseology and native speakers fluency, especially in different areas of inquiry, the main purpose of the present study is to investigate the lexical structure of abstracts with a pedagogical intent.

MAIN FOCUS OF THE CHAPTER

Data

The corpus, the Scientific Paper Abstract corpus (SPA), used in the present analysis, has been collected manually by the author and it is approached as a subject area where especially a top-down perspective is taking into account. The learning process is considered instrumental, since corpus techniques are seen as a set of features that may corroborate effective language acquisition.

Corpus texts, originally in PDF format, have been transformed into txt format so that they can be easily inspected by concordancing programs such as *WordSmithTools 4.0* and *Concapp*. SPA is made up of 2,816 scientific abstracts of three journals: 423 abstracts from *The International Journal of Primatology (IJP),* 675 from *Mathematics and Computers in Simulation (MCS)* and 1,718 from *Proteins: Structure, Function, and Bioinformatics (PRT);* the time span, taken into consideration, covers six years, from 2000 to 2005 and there are about 573,513 tokens[1] and 22,106 types, the type/token ratio standardized is 41,03.

The peer-reviewed journals are from quite different scientific fields. IJP[2] presents laboratory and field studies related to anatomy, ethology, ecology, conservation, genetics, and, evolution in primates. MCS[3] publishes articles about modeling and simulation in science and engineering in applied mathematics, while PRT[4] deals with new experimental and computational approaches for interpreting and understanding data from biophysical chemistry, structural studies of proteins and macromolecular assemblies through techniques of molecular biology and genetics.

Martin-Martin suggests that:

In the process of publishing the results of research, abstracts constitute, after the paper's title, the readers' first encounter with the text, and it is here that writers have to show they have mastered the conventions (the textual organization and other rhetorical practices) that are favored by the members of a specific disciplinary group. (Martin-Martin 2005, p. 5).

On the other hand, as regard abstracts function Bhatia (1993) suggests that an abstract is an exact and concise summary of the full article. Abstracts are meant to inform the reader about what they are going to read in the whole paper.

In the present research paper, abstract consists of a title, the text of the research article and some keywords. Information about authors and their institutions have been deleted because not considered relevant for the purpose of the present study, in particular it is worth mentioning that usually research papers, published in peer-reviewed journals, often have more than one author, mostly because of the nature of the scientific research itself. Publishing the results of a study is an essential part of the scientific method; scientists generally must supply enough details of an experiment that an independent researcher could repeat the experiment to verify the results against the information provided. Each journal article becomes part of the permanent scientific record. Decisions on how articles should be credited can be contentious. The International Committee of Medical Journal Editors[5] states that authorship credit should be based on substantial contributions to conception, elaboration, acquisition of data, or analysis and interpretation of data; drafting and successive editing of the article is crucial for the intellectual content and property. However, despite specific norms and details provided by different journals about the length of words allowed in every abstract, in no cases do editorial guidelines provide clear indications for writing and structuring Abstracts in an appropriate way. As suggested in the academic context by Swales (1990) abstracts should summarize the purpose, methods, results, and major conclusions of the work conducted by the researcher, this is the standard for informative abstracts, because they have to provide information about the contents of the article, its key facts and conclusions. However, it has occurred to me reading abstracts random that these, most of the time, are quite poorly written and not well-structured. Generally speaking, every abstract is structured in moves, different units of text. “A move has to be considered as a genre stage which has a particular, minor communicative purpose to fulfill, which in turn serves the major communicative purpose of the genre”. (Dos Santos 1996, p. 485). In investigating the textual structure of research articles, CARS model, Swales (1990) presents the *Introduction, Method, Results* and *Discussion* ─ IMRD ─ structure, claiming that all research papers are organized according to this scheme, and abstracts should respect this structure as well. Unfortunately, theory is often quite distant from reality. As a matter of fact, below is reported an example from MCS, abstract number 520:

A procedure is given for reducing nonlinear ordinary differential equations containing exponential and logarithms to systems of polynomial ordinary differential equations. Examples that Maple V release 4 cannot solve, but can solve after the transformations are given.(520_MCS)

The abstract above has 37 words, a quite short amount of words for an abstract, average length in abstract is 200/250 words. On the other hand, the following abstract 3 from IJP is well-formed and richer of details than the previous one, although the number of words is still below the average, there are 66 words:

During a long-term field study on the behavioral ecology and communication of a population of the monogamous Milne-Edwards' sportive lemur (Lepilemur edwardsi) in NW-Madagascar, we recorded for the first time an infanticide in a nocturnal lemur. A male newcomer killed the infant of a female whose male partner had left her recently. Both the social-pathology and the sexual-selection hypotheses may explain infanticidal behavior in Lepilemur edwardsi. (3_IJP)

In the attempt of investigating abstracts structure in details, in 1996 dos Santos combined Swales' IMRD structure with a more general perspective, coming up with five moves,:

- Move 1– situating the research;
- Move 2 – presenting the research;
- Move 3 – describing the methodology;
- Move 4 – summarizing the results;
- Move 5 – discussing the results.

Each move, usually, has some submoves (dos Santos1996, p. 485). Important submoves within the Move 1 are: ‘Stating current knowledge’, ‘Citing previous research’, ‘Extended previous research’, and ‘Stating a problem’. On the other hand, in Move 2 there are submoves such as ‘Indicating main features’, ‘Indicating main purpose’, and ‘Hypothesis raising’. Last in Move 5 there are two submoves: ‘Drawing conclusions’ and ‘Giving recommendations’. Unfortunately, due to space constraints move analysis of the corpus data is not provided in details, however there are some characteristics worth mentioning. In particular, abstracts from the SPA corpus tend to be highly technical, representing the latest theoretical research and experimental results in the field of science covered by the different journals. They are often incomprehensible to anyone except for researchers in the field and advanced students. In some subjects this is inevitable given the nature of the content. MCS abstracts focus mostly on the methodology, such as on how precise algorithms are applied to different mathematical analysis. Sometimes results are not mentioned because a precise method in use is the result of the research study itself. PRT Abstracts focus on specific approaches for interpreting data from macromolecular assemblies of protein structure, emphasis shifts from methodology to results. On the other hand, IJP Abstracts cover up various topics, in a certain way, IJP is similar to the soft science of the humanities. In this regard, Mayr (2004) distinguished two aspects in biology, functional biology that relies on experimental approaches of the hard science highlighting how something happens, and evolutionary biology that is driven by asking why and uses methodologies familiar to the humanities like historical narratives and comparison, for instance in anatomy and genomics (studying similarities). Therefore, the *International Journal of Primatology* shifts focus from the methodology, in social learning studies, to relevant results in molecular biology studies. Social learning findings deal more with animal behaviour rather than with number or other more 'numerical' results. On the other hand, molecular biology studies provides more countable results dealing with numbers and DNA distribution.

METHODOLOGY

Methodology used in the present research study, is primarily corpus-based, concordance lines and collocational tools are used to analyze data and to provide semantic profiles of specific words defined herein as 'research process words'. The main aim is to identify recurrent set of phrases in abstracts and teaching these constructions to non-native speakers, so that students can learn how to write an abstract appropriately.

The analysis consists of running concordances on some specific words, investigating the collocational behavior and noticing what are the most recurrent clusters[6] or n-gram[7] present in the structure of the abstracts. Collocations are computed according to the mutual information (MI) score[8]. Premises of the analysis are some words defined, as 'research process words': *analysis/es, data, evidence/s, finding/s, investigation/s, method/s, methodology/ies, paper/s, procedure/s, research/es, result/s, study/ies,* and *theory/ies*, these words will be explained further in details in the present section. Software used for analyzing collocational patterns and identifying n-grams in the SPA corpus are *WordsmithTools* 4 (Scott 2004) and *Concgram* (Cheng et al 2006).

Before further comments about the methodology, it is essential to define why some words are defined as research process words. As previously mentioned, abstracts are usually organized according to the IMRD structure, where terms such as *data, evidence, results, investigation, method, etc.* appear to be quite recurrent due to the nature of the text itself. These words belong to the concept of *process* in Hallidayan terms (Halliday 1994, p.109) especially the material 'process of doing', where the logical elements *actor, process* and *goal* are, in a certain way, present altogether in the words themselves. As a matter of fact, *analysis, data, method* and so on have always the same actor (the researcher) and encapsulate the action itself. In a study, the *researcher* uses the scientific *method* referred to a body of techniques for *investigating* and *analyzing data* (previously collected) having in mind a specific *purpose*. Then, s/he will acquire new *findings* based on observable, empirical, and measurable *evidence* making up a *theory* that, eventually, will allow the researcher to write significant *results* in a *paper.* The words previously mentioned in italics can be grouped under the category of the research process aspect and hereafter are defined as *research process words* – RPWs – because they emphasize the process part in the text of the abstracts.

As far as software packages are concerned, *WordSmithTools* – WS -has been used to identify which are the most frequent RPWs in the SPA corpus. WS is an integrated suite of programs for looking at how words behave in texts; it has several tools, however in the present analysis only *WordList* and *Concord* are taken into consideration. *WordList* creates word lists, ordering them by frequency and alphabetically. *Concord* locates all references to any given word or phrase within a corpus, showing them in standard concordance lines with the search word centred and a variable amount of context at either side. On the other hand, recurrent n-grams are identified by a new computer-based methodology that is ‘concgramming’ (Cheng et al 2006), by means of the software *ConcGram.* The primary aim of this automatic search is the identification of the phraseological profile of a corpus and then its ‘aboutness’ (Phillips 1989). The idea of using *ConcGram* as software relies on the fact that some instances of word associations might be overlooked and that collocations may be also found non-contiguously. Hence, by the use of this methodology we can identify all the ‘potential configurations’ between 2 and 5 words including “the associated words even if they occur in different positions relative to one another (i.e. positional variation) and even when one or more words occur in between the associated words (i.e. constituency variation)” (Cheng et al 2006, p. 413). Analyzing concordance lines is the most detailed part of the corpus study. Tognini-Bonelli (2001) suggests that:

[a] corpus, examined at first in KWIC [key word in context] format [...], is read vertically, scanning for the repeated patterns present in the co-text of the node [word] or keyword that is displayed in the centre with a small amount of context on each side. (Tognini-Bonelli 2001, p. 3).

Once the KWIC format is displayed, the researcher has to focus on how to proceed with his investigation that is not always easy to identify. In this regard, Mahlberg (2005, p. 54) suggests that to identify recurrent patterns and those set of words functioning as a unit of meaning is quite demanding. Eliciting response from the corpus and incorporate them into the paradigmatic description appear to be uncertain. Therefore, alongside with the automatic aspect of frequency of collocations generated by computer software, introspection plays a crucial role for the interpretation of textual evidence, for the analysis of collocation results and for the identification of lexical relations. The collocational analysis of the RPWs, computed according to the MI score, allows to notice recurrent phraseology and regular pattern used in the genre of the research article abstract.

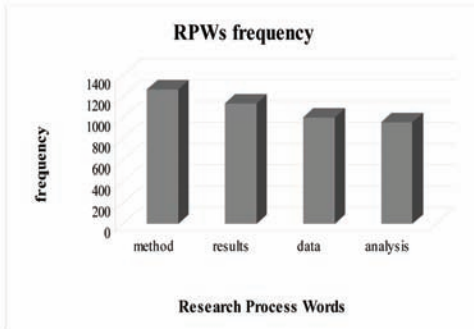
Corpora cannot provide absolute certainty that the information contained in it are universal, but as always happens in the linguistics field, narrowing down to a specific genre allows to make crucial generalizations against some observations.

After running concordances on the most recurrent RPWs, I have carefully noticed which are the most recurrent n-grams, than the investigation proceeds commenting on what are the most recurrent patterns, and what part of speech, i.e. verbs or adjectives appear to collocate more often with the RPWs. The main purpose of the investigation is to find recurrent pattern for each RPWs and to

Figure 1. 3-gram ‘analysis shows that’

1	number of domains found in a protein is 13. The	analysis shows that	over the history of the PDB, new domain
2	diguanosine monophosphate. Domain architecture	analysis shows that	GGDEF is typically present in multidomain
3	models in explicit water solvent. A kinetic	analysis shows that	the formation of a first alpha-helical turn
4	affected by the mutations. Ultracentrifuge	analysis shows that	all three mutants are monomeric at neutral
5	to large values of protein R-factors. The	analysis shows that	significant R-factor values can arise from
6	histidine methyl ester (HME) bound. Structural	analysis shows that	the apo-D53,54N mutant is in the inactive or
7	in these genes. Contrary to expectation, the	analysis shows that	these are not associated with an unusually
8	analysis of putative rigid body domains. The TLS	analysis shows that	beta-strands 6-12 together form a rigid
9	+/- 0.1 kcal/mol). A free energy decomposition	analysis shows that	hydan makes optimum interactions with
10	complementarity. Secondary structure composition	analysis shows that	neither helices nor beta-sheets are
11	relation to their properties and functions. This	analysis shows that	pH optima of enzymes with
12	based on helical propensity alone. Correlation	analysis shows that	both helical propensity and hydrophobicity
13	of non-zero flows; agricultural profit. The	analysis shows that	the model is sensitive to changes in inputs
14	number. An analytical mass balance error	analysis shows that	the proposed non-traditional scheme incurs a
15	have information content. Cross-sectional	analysis shows that	forecast errors and the timing of the
16	sites is also investigated. The correlation	analysis shows that	for most pollutants, the effect is only

Figure 2. Most recurrent RPWs in the SPA corpus



verify whether all the investigated words share common patterns.

Focus is on repeated events rather than on single occurrences, because as Sinclair (1996) states: "[...] unique one-off events are necessarily ignored but they cannot be evaluated in the absence of an interpretative framework provided by repeated events" (p. 78). Language patterns usually are taken into consideration if they occur at least fifteen times, because rather than focusing merely on frequency and occurrence we are working with n-grams, mostly 3-grams. When a reliable description of regularities is assembled then it is possible to build up generalization and read those against former theories.

A recurrent n-gram '*analysis shows that'* is displayed below as an example of the methodology applied in the present study:

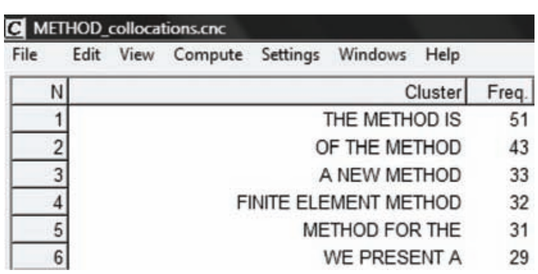
In the figure above, the research process word is *analysis,* it occurs 16 times together with the verb *show* forming the 3-gram *analysis show that*. Results accomplished by means of this methodology are shown and explained further in the following section.

FINDINGS AND DISCUSSION

After analyzing the RPWs and having performed collocational analysis on the basis of the MI score, it is possible to observe some patterns and to look for regularities and phraseology regarding scientific language. However, generalizations have to be cautious due to the limited size of the corpus because, as already mentioned, this is a specialized corpus, roughly 580,000 tokens.

Findings reported in this section are related to the most recurrent RPWs among the top 50 words in the wordlist of the SPA corpus that are: *method* (1,262 times), *results* (1,129 times), *data* (1,004 times) and *analysis* (958 times). As displayed in following bar chart:

Figure 3. Most recurrent clusters of 'method' in the SPA corpus


METHOD_collocations.cnc

File Edit View Compute Settings Windows Help

N	Cluster	Freq.
1	THE METHOD IS	51
2	OF THE METHOD	43
3	A NEW METHOD	33
4	FINITE ELEMENT METHOD	32
5	METHOD FOR THE	31
6	WE PRESENT A	29

Figure 4. 3-gram 'the method is' + based

```
1          <p>We present a database search method that is based on phylogenetic trees (treesearch).
2               polynomials are presented. The method is based upon expanding various time functior
3                    of membrane proteins. The method is based on computation of a polar energy sur
4         of 8 CASP4 targets are described. The method is based on the assembly of supersecondary st
5          integral equations is presented. The method is based upon Legendre wavelet approximations
6               models of protein folding. The method is based on the maximization of the thermodyr
7           present in the entire ensemble. The method is based on the geometric hashing paradigm. A
8          respect to the 20 residue types. The method is based on the preference of amino acids for
9            in two-state folding proteins. The method is based on ab initio simulations of folding
10           steric clash at the interface. The method is based on local shape feature matching, avc
11                     for the amino acids. The method is based in the subdominant ultrametric assoc
12           from its amino acid  sequence. The method is based on a simple linear regression scheme
13           target domains are described. The method is  based on the assembly of supersecondary st
```

As mentioned, collocates are computed according to the MI score and after computing, attention is focused on the most recurrent three word clusters or 3-gram of the RPWs.

In detail, the first RPW *method* presents some recurrent clusters as displayed in the following snapshot of *WordsmithTools* clusters function:

As we can see, the most recurrent 3-gram is *the method is* (51) and the less recurrent is *we present a* (29). Due to time constraints we cannot investigated each 3-gram in details, however we will provide more details for the two clauses, the first and the last one, that are two subordinate clauses. The 3-gram *the method is* apparently collocates very often with *based*, and less recurrently with *used*, as displayed in the following concgrams.

In figure 4, the pattern is *the method* + *is* + *based* + *on something*, and it is interesting to notice that this structure tends to have an initial sentence position. Similarly, in figure 5 the pattern is *the method* + *is* + *used* + *to* + verb. In particular, if attention is focused on verbs, these can be grouped as mental verbs, because they include a cognitive activity that is relatively dynamic in meaning (Biber et al. 1999, p. 363).

On the other hand the 3-gram *we present a method* shows other remarkable features as displayed in the following figure:

As mentioned, using concgrams helps to find collocations non-contiguously. In particular, what is interesting to notice is that focusing on line 16^{th} to line 20^{th} *method* is premodified by *new*, generally speaking, something *new* is original and of a kind not seen before, having no previous examples; in particular, in the scientific context something *new* is helpful and it is used for doing something good for the research. In the field of science the expression of value, the authorial stance, is often inexplicit however we can perceive the *good* or *bad* as depending on the goal of the activity. Something that is *good* helps to achieve a goal, while something that is *bad* prevents or hinders the achievement of a precise goal. As a consequence, the 3-gram *a new method* is definitely positively evaluated. Similarly method is premodified by *novel* in line 21^{st} until 25^{th}, *novel* is undoubtedly a synonym of *new*, and therefore there is still a strong positive evaluation. On the other hand, the RPW *results* display some interesting clusters too, as displayed in the following table:

Figure 5. 3-gram 'the method is' + used

```
1          than some well-known methods in the literature. The method is used to determine the impact of the chemotherapy
2           of the linear extrapolation method, review how the method is used to measure protein stability, and then
3             is based on phylogenetic trees (treesearch). The method is used to search a protein sequence database for
4             treatment of the bulk solvent, is presented. The method is used to predict and interpret the pK(a) values of
5          dipolar-coupling, and hydrogen-bond restraints. The method is now being used routinely to optimize
```

Figure 6. 3-gram 'we present a' method

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6    of repeats in protein structure.     We present a method called DAVROS to detect, localize, and
7     Reduced phase spaces</keywords> <p>We present a method to calculate formal symmetries of dynar
8       these overheads are prohibitive. We present a method for solving the mesh partitioning and p
9      RMSD calculations. In this paper, we present a method, based on a novel, structurally definec
10    for RMSD calculations. In addition we present a method for deciding whether to partition that
11      solvent accessible surface area. We present a method to predict the contact numbers of a prc
12   no significant sequence similarity. We present a method to identify conserved amino acid posit:
13     the molecules to be aligned. Here we present a method to obtain the weights for the different
14       decoys obtained by threading?   We present a method to derive contact energy parameters frc
15        from inactive substances. Here we present a method for improving the accuracy of HTS hit 1
16       between distant atoms. Here we present a new method to eliminate residual rotation and trar
17          of the interacting pair. We present a new method that uses a formulation of continuum
18   their application in docking.   We present a new method for representing the binding site of a
19                  IV (DPP-IV).   We present a new method for more accurate modeling of protein s
20       into exposure states. Here, we present a new method with which to  predict real value ASAs
21            without threading.  We present a novel method designed to analyze the discriminative
22    from graph spectral method.  We present a novel method for the identification of structural dc
23      templates and pathways.    We present a novel method, HMMSTR-CM, for protein contact map pre
24         were undetectable. Here we present a novel method that employs the hydropathy distributic
25        to kinase inhibitors.    We present a novel method for stepwise scaffold assembly that int
26    network of protein chains.  We present a simple method for the analysis of large networks base
27    simulation of biomolecules. We present  a novel method for efficient conformational sampling.
28    Discrepancy</keywords> <p>We present a particle method for solving initial-value problems for
29      dynamics</keywords> <p>We present a numerical method that allows a formation of communicati:
30           <p>In this paper, we present a numerical method for the computation of surface water wa
31    variational approach.  We present a variational method to derive knowledge-based potentials. 1
```

Attention is focused on the last three dependent clauses: *results suggests that* (73), *results indicate that* (68) and *results show that* (50). At a first glance, these three clusters share the same pattern *results* + verb + *that*, however further interesting observations may be drawn focusing on the following concgrams:

In detail, in Figures 7, 8, and 9 it appears evident that the 3-grams analyzed are very likely to collocate with the possessive *our*. Generally, in the scientific field there is a sort of dichotomy between the author's identity, represented by the possessive adjective *our*, (and sometimes by the adjective *my*) and the other researchers. As Hunston (1993, 1994) suggests the author presents him/herself as a researcher working towards the achievement of specific goals. The events in the research process are viewed in this light. Other participants in the text are presented implicitly as having goals of their own, which may have or not a bearing upon the scientist's. Defending and supporting the 'legitimate paternity 'of the research encapsulate the presence of the authors and their own discourse community. It is also worth mentioning, that although according to Biber et al. 1999 the verbs *suggest*, *show* and *indicate* are not grouped in the same semantic domain, in particular, *suggest* is a communication verb, *show* is an activity verb and last *indicate* belong to the existence group, however, these

Table 1. Most recurrent clusters of results in the SPA corpus

Cluster	Freq.
The results of	97
results suggest that	73
results indicate that	68
results show that	50

Figure 7. 3-gram 'results suggest that'

1	but it increased the number of floor nests.	Our results suggest that	providing adequate materials
2	above the ears. In contrast to other studies,	our results suggest that	the presence of white facial
3	and novel food than when they were isolated.	Our results suggest that:	1. juvenile common
4	Ateles spp., may partly explain these patterns.	Our results suggest that	variation in plant community
5	to thermodynamic behaviors closer to experiment.	Our results suggest that	proteinlike thermodynamic
6	contact replaces the original (single-tier) one.	Our results suggest that	a detailed treatment of the
7	due to binding to be 28 J/K/mol. Therefore,	our results suggest that	the entropy of interior
8	in the absence of both glutamate and kainate.	Our results suggest that	the opening/closing
9	describing different types of interactions.	Our results suggest that	the local interactions along
10	acid substitution in the flexible loop region.	Our results suggest that	the destabilization in the
11	are the building blocks of protein structures.	Our results suggest that	the incorporation of the
12	the cysteine disulfide bonding states.	Our results suggest that	the information on the
13	between theoretical and experimental results.	Our results suggest that	HCMV protease is indeed a
14	still display similar linear relationships.	Our results suggest that	the multitude of
15	of cysteine 42 in a size-dependent manner.	Our results suggest that	residue 44 is an important
16	(-4) position and leucine in the (-5) position.	Our results suggest that	peptides or proteins with
17	largest superfold comprises about 800 families.	Our results suggest that	although the majority of
18	identify the correct sequence-structure mapping.	Our results suggest that	in many cases use of
19	in the Greek-key native fold of SOD1.	Our results suggest that	the high aggregation
20	the prevalence of B-DNA in the database,	our results suggest that	A-DNA is favored in the
21	to the increase of heat shock protein levels.	Our results suggest that	the dramatic changes in S.
22	coat protein subunit and the capsid diameter.	Our results suggest that	the PPI indices in T=1 and
23	for obtaining a "fully aggregating" phenotype.	Our results suggest that	conformational flexibility,

Figure 8. 3-gram 'results indicate that'

1	correlation with average tree circumference.	Our results indicate that	Rhinopithecus roxellanae
2	recording the behavior of a focal group.	Our results indicate that	the langur groups selected
3	did across the first 9 weeks of infant life.	Our results indicate that	the presence of infants has
4	show an additional pericentric inversion.	Our results indicate that	Pygathrix nemeus is
5	of the Yuanmou hominoid and Lufengpithecus.	Our results indicate that	both the upper and lower
6	acids of the lowest sequence structural entropy.	Our results indicate that	structural conservation is
7	at later ages and in future generations.	Our results indicate that	early cohabitation is a
8	on assessing relative productivity developments.	Our results indicate that	the New Zealand primary
9	details of benzaldehyde binding to ALDH3A1.	Our results indicate that	while the nucleophilic
10	unfolding transition at 261 K.	Our results indicate that	the molten globule state of
11	more favorable protein energy term.	Our results indicate that	salt bridges and their
12	are involved in the catalytic reaction steps.	Our results indicate that	the palm-like structure of
13	of amino acid sequences in two-state proteins.	Our results indicate that	1) helical proteins have
14	in FeSC biogenesis. Based on such methods,	our results indicate that	the proteins with which
15	subunits retain considerable chaperone activity.	Our results indicate that	chaperone activity depends
16	to more topologically compact folded states,	our results indicate that,	for a given temperature
17	inside of the molecule in the transition state.	Our results indicate that	local interactions as well
18	motion in sequence space around the optimal HP.	Our results indicate that	the correlation coefficient
19	feature of woolly monkey reproductive biology.	Our genetic results indicate that,	as in other
20	stabilities of solitary waves very well. Also,	our numerical results indicate that	these schemes can

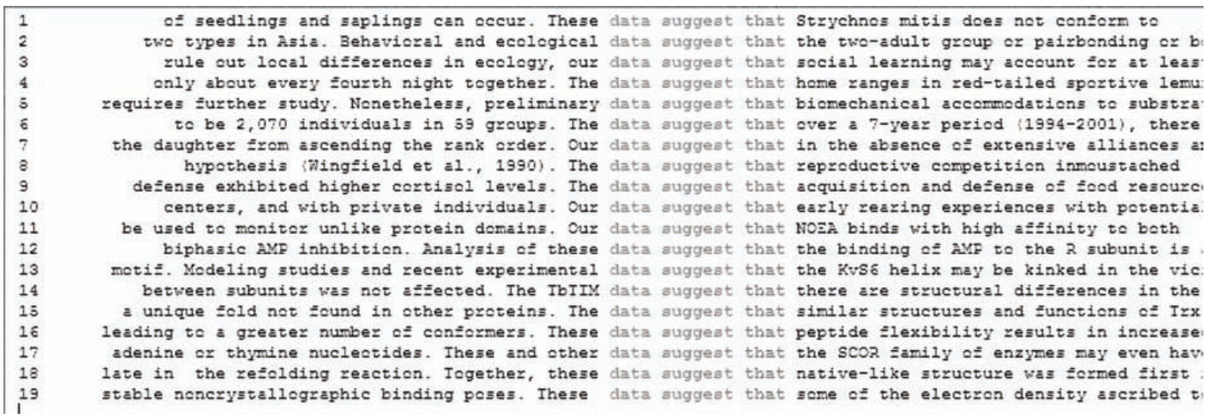
Figure 9. 3-gram 'results show that'

1	and gradations within call types were apparent.	Our results show that	although a prosimian, nocturnal
2	and phonotaxic techniques,	our results show that	cotton-top tamarins can
3	abnormal returns, and order imbalance.	Our results show that	the release of earnings and
4	and compactness of the resulting models.	Our results show that	it is possible to detect
5	of magnitude compared to traditional approaches.	Our results show that	we can achieve nearly perfect
6	stable populations of proteins tend to dominate.	Our results show that	functionalities consistent with
7	in low-temperature protein simulations.	Our results show that	this technique allows one to
8	with a spherical probe of radius of 1.9 A.	Our results show that	there are characteristic
9	we obtained a prediction accuracy of 65.3%.	Our results show that	SVM coupled with suitable
10	Ribonuclease HI and holocytochrome c(551).	Our results show that	the positions of the largest
11	predicted to be either pathological or neutral.	Our results show that	the method has a good overall
12	or subfamilies in a set of homologous proteins.	Our results show that	protein families can be
13	tectonic valley with a high water-pumping rate.	Our preliminary results show that	the land subsidence

Table 2. Most recurrent clusters of 'dat'a in the SPA corpus

Cluster	Freq.
Protein data bank	80
The protein data	62
Data Bank Protein	25
Data set of	21
Data suggest that	21
With experimental data	18
We collected data	15

Figure 10. 3-gram 'data suggest that'

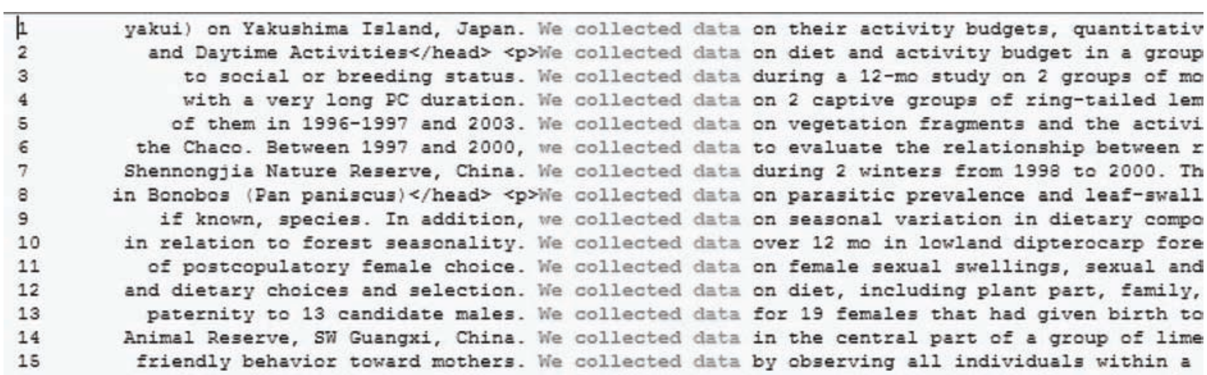


```
1   of seedlings and saplings can occur. These data suggest that Strychnos mitis does not conform to
2   two types in Asia. Behavioral and ecological data suggest that the two-adult group or pairbonding or b
3   rule out local differences in ecology, our data suggest that social learning may account for at leas
4   only about every fourth night together. The data suggest that home ranges in red-tailed sportive lemu
5   requires further study. Nonetheless, preliminary data suggest that biomechanical accommodations to substra
6   to be 2,070 individuals in 59 groups. The data suggest that over a 7-year period (1994-2001), there
7   the daughter from ascending the rank order. Our data suggest that in the absence of extensive alliances a
8   hypothesis (Wingfield et al., 1990). The data suggest that reproductive competition inmoustached
9   defense exhibited higher cortisol levels. The data suggest that acquisition and defense of food resourc
10  centers, and with private individuals. Our data suggest that early rearing experiences with potentia
11  be used to monitor unlike protein domains. Our data suggest that NOEA binds with high affinity to both
12  biphasic AMP inhibition. Analysis of these data suggest that the binding of AMP to the R subunit is
13  motif. Modeling studies and recent experimental data suggest that the KvS6 helix may be kinked in the vic
14  between subunits was not affected. The TbTIM data suggest that there are structural differences in the
15  a unique fold not found in other proteins. The data suggest that similar structures and functions of Trx
16  leading to a greater number of conformers. These data suggest that peptide flexibility results in increase
17  adenine or thymine nucleotides. These and other data suggest that the SCOR family of enzymes may even hav
18  late in the refolding reaction. Together, these data suggest that native-like structure was formed first
19  stable noncrystallographic binding poses. These data suggest that some of the electron density ascribed t
```

verbs are more recurrent than any other verbs in the academic prose. (Biber et al 1999, p. 373). In the academic discourse, these verbs tend to occur with inanimate subjects, together with the repeated use of the copula *be*, as similarly noticed in the first two 3-grams of the RPW *method*: *the method is applied* and *the method is used*.

The third RPW *data* presents particular recurrent clusters. Since the top recurrent clusters are just noun phrases, only 3-grams with verb phrases

Figure 11. 3-gram 'we collected data'



```
1   yakui) on Yakushima Island, Japan. We collected data on their activity budgets, quantitativ
2   and Daytime Activities</head> <p>We collected data on diet and activity budget in a group
3   to social or breeding status. We collected data during a 12-mo study on 2 groups of mo
4   with a very long PC duration. We collected data on 2 captive groups of ring-tailed lem
5   of them in 1996-1997 and 2003. We collected data on vegetation fragments and the activi
6   the Chaco. Between 1997 and 2000, we collected data to evaluate the relationship between r
7   Shennongjia Nature Reserve, China. We collected data during 2 winters from 1998 to 2000. Th
8   in Bonobos (Pan paniscus)</head> <p>We collected data on parasitic prevalence and leaf-swall
9   if known, species. In addition, we collected data on seasonal variation in dietary compo
10  in relation to forest seasonality. We collected data over 12 mo in lowland dipterocarp fore
11  of postcopulatory female choice. We collected data on female sexual swellings, sexual and
12  and dietary choices and selection. We collected data on diet, including plant part, family,
13  paternity to 13 candidate males. We collected data for 19 females that had given birth to
14  Animal Reserve, SW Guangxi, China. We collected data in the central part of a group of lime
15  friendly behavior toward mothers. We collected data by observing all individuals within a
```

Table 3. Most recurrent clusters of analysis in the SPA corpus

Cluster	Freq.
Analysis of the	162
The Analysis of	50
An Analysis of	37
Analysis of a	23
Analysis of protein	20
Principal component Analysis	17
Detailed analysis of	17
Structural analysis of	16
Analysis shows that	16

will be investigated further, that is: *data suggest that* (21) and *we collected data* (15).

Apparently, the 3-gram above is very likely to be premodified by *these, the* and by *our*, while the following concgram displays the second 3-gram *we collected data*.

At a superficial glance, there are no striking observations but the fact that this 3-gram is very likely to occur at initial sentence position.

Last, the RPW *analysis* occurs very frequently in noun phrases as displayed in the following Table 3.

Only two of the above 3-grams, due to the presence of a verb form, are explained further: *detailed analysis of* (17) and *analysis shows that* (16):

In figure 12, the adjective *detailed* provides a positive connotation to the 3-gram, as a matter of fact, by definition something that is *detailed* has been developed or executed with care and in minute details. Apparently, as displayed in line 1 and 5 *a detailed analysis* collocates with the verb *show*, while in line 6 with the verb *permit* and in line 12 with the verb *allow,* as suggested by Biber et al. (1999, p. 363): "these verbs often occurs with a nominalized direct object or complement clause following the verb phrase, which reports that action that was facilitated". However, it is worth mentioning that the verb *to show* occurs very often because the semantic group of activity verbs are more recurrent than verbs from any other semantic domains in the academic prose (Biber et al 1999, p. 365).

On the other hand, the 3-gram *the analysis shows* (previously displayed in figure 1 in the methodology section) does not present any con-

Figure 12. 3-gram 'detailed analysis of'

1	by crossed laser beams is steadily increased.	Detailed analysis of	our data shows several features
2	in the heme-iron acquisition process. The	detailed analysis of	the three known structures reve
3	at an equivalent position in all the enzymes. A	detailed analysis of	the site-directed mutations so
4	approximately sharon a	detailed analysis of	the conservation pattern obtain
5	their contribution to the binding free energy,	detailed analysis of	their properties shows that the
6	A (main chain only). The methodology permits a	detailed analysis of	the molecular forces which domi
7	a simple exponential by less than 0.5%. Only a	detailed analysis of	the dynamics is likely to revea
8	current work describes the identification and	detailed analysis of	the putative G-proteins encoded
9	large databases are used in this study, a more	detailed analysis of	the data than in previous studi
10	being stabilized by a water molecule.	Detailed analysis of	the trajectories allows to reve
11	molecular dynamics simulations followed by a	detailed analysis of	protein-water interactions have
12	antigen 5's. The structure of Ves v 5 allows a	detailed analysis of	the epitopes that may participa
13	the coordinates of the two structures and a	detailed analysis of	the helical packing. 371: Pro
14	the formation of the fusogenic structure. A	detailed analysis of	the electrostatic contributions

struction worth to be mentioned, but the observation that *show* appears to be a recurrent verb in all the previously mentioned 3-grams.

In the present section, collocational analysis and concgrams have provided a different way to look at specific jargon in the scientific field, in the next section results will be summarized and some conclusions will be drawn.

CONCLUSION

Having suggested another way of inspecting texts and teaching specific jargon, it is worth mentioning that accessing corpus data can provide a wider and richer view of those lexical items that are usually only identified through vocabulary exercises, as suggested by Hunston (2002, p. 184). However, the application of corpus information in teaching should be done progressively, in harmony with the students' learning needs. As part of this development, a number of methodological difficulties of corpus use in language pedagogy need to be overcome, as already mentioned, some of these difficulties relate to corpora as a pedagogical resource.

The present study introduces a computer-based methodology, 'concgramming', that has as its primary aim the automatic identification of the phraseological profile and hence the 'aboutness' of a text. In other words it argues that relatively simple developments in the currently available technology can assist teachers and learners in this important area of language learning and teaching. It supports this proposal by discussing replicable learning and teaching activities which enable learners and teachers to raise their awareness of patterns of phraseology. This methodological approach can be employed by language learners and teachers to raise awareness of the importance of the phraseological tendency in language. Information Technology –IT - is conceived as a subject area that applies to many others (a multidisciplinary scope), and IT use and applications enable the performance of communicative tasks in EAP (English for Academic Purposes). However, there are also methodological challenges relating to the exploration of corpora. One simple aspect is that language learners are not necessarily expert corpus users. Nevertheless, the interpretation of *wordlists* and *concordances* requires a level of analytical skill and attention to detail which students can acquire easily. Of course, they cannot perform statistical computing on their own but corpus-based analysis, concgrams and KWIC format can be identified straightaway.

Focusing on the findings showed in the previous section, it is worth drawing some observations related to the academic writing. As far as the research process words are concerned, as already mentioned, the word *method* appears very often in the 3-grams *the method is* and *we present a method.* In structuring an experiment and then in drawing a paper, the methodology has to be defined and set carefully in advance, because an accurate method, used in an appropriate way, is necessary for accomplishing precise goals and for contributing to the success of the whole experiment, students cannot skipped this aspect while arranging their abstract.

On the other hand, the RPW *results* occurs very often in the 3-grams *results suggest that*, *results show that* and *results indicate that* collocating with the personal pronoun *our*. It is worth mentioning that rather than going into long descriptive details such as: '*I gained these results in my study and on the strength of my data I suggest that*...' Hunston describes the clause '*these results suggest that....*' as encapsulating all the human effort gone into the research, with an implied positive value. In scientific writing what counts is the 'evaluation of *value'* which denotes quality on the *good/bad* scale (Hunston 1993, p. 60). Recognizing evaluation in a text leads the reader to accept the value system of a well-defined discourse community. "Research articles often posit hypotheses whose value is then evaluated according to whether the hypotheses are supported or not" (Hunston 1993, p.

63). Something that helps the researcher to achieve a goal is *good*, while something that prevents or hinders the achievement of a precise goal is *bad*. Results mentioned in a research paper are mostly good otherwise not worth to be published.

Similarly, most recurrent 3-grams of the RPW *data are we collected data* and *data suggest that,* the latter cluster has a clear evaluative connotation, and it is quite often premodified by *these, the* and *our*. However, the claims restricted to data descriptions are in a way not inherently scientific, because as Hunston (1994) suggests they are the result of a process of negotiation, because ultimately research article authors aim at publishing. As matter of fact, the same claim may be considered as 'accurate', a 'highly significant' or a 'well-known, depending on the body of literature into which it is placed and the audience which is supposed to read it, students need to be aware of this.

Last, the 3-grams a *detailed analysis of* and *analysis suggests that* are the most frequent clusters of *analysis*. Herein also *analysis* is very likely to be premodified by the possessive adjective *our*, furthermore it collocates with the verb *show*, *permit* and *allow.*

Apparently the possessive *our*, the authors identity, is quite a recurrent collocate of the most frequent and evaluative pattern in the SPA corpus. Writing within a scientific genre implies respecting clear and hidden rules. Abstracts are written in a peculiar way, it is sufficient to acknowledge that the layout and style of an abstract identifies it as belonging to the area of 'real science' and, therefore, worthy of serious consideration by scientists; it also establishes the criteria by which the text will be evaluated, by implying other relevant goals, such, as accuracy; authors present themselves as researchers working for achieving specific goals but also in writing the text scientists hope to achieve other goals, such as acceptance by the scientific community. These goals are not stated in the text, but the more admissible of them may be deduced as they are necessary for the interpretation of certain parts of the text. (Swales 1990).

The value system of the academic/scientific discourse community is thought to prefer impersonal discourse with no explicit evaluation (Mauranen 2004, p. 116) evaluation is performed with non-personal but metaphoric terms (Halliday 1994) and expressed implicitly by non-human actors. This is true to a certain extent because the author is behind the research represented by expressions such as: *analysis suggests that, results indicate that, results suggest that and the method is based on*.

One of the chief functions of abstracts is to persuade the reader of the validity of the writer's claims, and to accomplish this purpose, the work of the writers and of other researchers is constantly evaluated along the text distribution. By giving students an accurate picture of how information is typically organized in research paper abstracts in science the suggested organization may allow a more precise critical reading where, for instance, a student or a researcher may be interested in one aspect of research instead of another (e.g. conclusions or methodology). Once students are able to separate the various parts of the paper, then they can use this competence to improve their skills in writing a well-structured abstract and finally they can successfully join their discourse community.

Belonging to a discourse community means share and respect some value, this is also true when students, especially graduate students read and struggle with academic papers. Therefore questions rise naturally: do students have the competence to understand the evaluative perspective in the papers they consider? Do they have the necessary tools to understand and write them properly? When is 'jargon' a necessary technical language, and when does technical language blur into unnecessary jargon? According to a Corpus perspective, teachers of English can help their students not only to deal with such questions, but also to identify specific phraseology as well as bafflegabs when they come across them. Drew himself (2004) claims that:

Academic writing is [...] unremittingly rhetorical as any other: no matter how technical and seemingly detached a scientific paper might be, its discourse is designed to persuade readers of the objectivity of its methods and the correctness of its findings. (Drew 2004, p. 217)

In the field of English for Academic Purpose - EAP - trainers may possibly help learners recognizing the structure of different genres, so that they can teach students a pre-set of recurrent academic expressions fitting with research article abstracts.

The intended approach aims to meet the needs also described by Thompson (2002), to make EAP teaching material reliable in terms of content novelty, and to exploit such content according to a corpus-based perspective.

The assumption is that words tend to co-occur so strongly that they cannot 'retain independent meanings' (Tognini-Bonelli 2001, p. 101). Looking at all the words associated with the research process, collocates contribute to a semantic analysis of a word (cf. Sinclair 1991: 115-116) and pointing out the semantic context is a more suitable way to teach students a new jargon, Francis and Sinclair (1994) suggest that

There is little point in presenting learners with syntactic structures […] and then presenting lexis separately and haphazardly as a resource for slotting into these structures […] we should not burden learners with vast amounts of syntactic information on the one hand and lexical […] information on the other, which they have to match according to principles which are not naturally available to them as non-native speakers. Instead teachers can present the structures and their lexis at the same time. (Francis and Sinclair 1994, p.200)

This is the main reason why teachers should use computers and a digital approach in the classroom. The need for pedagogically orientated corpus content is well reflected in the creation of small 'home-made' corpora which contain texts and more coherent with students' needs than traditional corpora (e.g. O'Sullivan & Chambers, 2006; Ghadessy, Henry & Roseberry, 2001).

Computers and Corpus Linguistics are a powerful hypothesis testing device on vast amounts of data, because they allow and lead controlled speculations, make hidden structures more visible, enhance imagination backed up by inductivity, thus making higher degrees of objectivity possible. Students and especially non-native speakers need a powerful hypothesis-testing device to have tested any rule against as many examples as possible before they can fully internalize it. Using the visual impact of the KWIC and the frequency number of data need imagination and eventually, learners remember the knowledge which they have formulated by themselves rather than formulations which have been imposed on them.

Recurrent n-grams that I have found in the present analysis are set of expressions like: *these results suggest that, we describe, we present, we discuss, this paper presents*, *the purpose of the present study, the aim of the present paper is*, or more elaborated constructions like: *techniques are proposed to solve, our results provide, our results show* or the frequent use of adjuncts such as: *therefore, as a result* or more evaluative expressions like: *although the observations are congruent with my hypothesis, we need more data to test it* or *these results are consistent with the hypothesis,* these constructions suggest undoubtedly a well-established linguistic conventions in the structure of the abstracts themselves.

The trainers can use frequency and range of occurrence as ways of deciding what vocabulary to learn and the order in which to learn it, can give adequate training in essential vocabulary learning strategies focusing on each lexical item according to the learning burden of that item, providing opportunities to learn the various aspects of what is involved in knowing a word. EAP pedagogy needs to take into account students' needs and their identity in the first place.

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KEY TERMS AND DEFINITIONS

Concgrams: Are patterns of word associations, and can be used in order to find all the word associated grammatically and semantically.

Concordance Software: An integrated suite of programs for looking at how words behave in texts, it has several tools aiming at highlighting typical collocational and syntactic patterns.

Concordance: Lines are like a snapshot of language, they display the search word in the centre and a variable amount of context at either side.

Corpus Linguistics: Studies language (real data, not ad-hoc built repository) collected in digital corpora, with the intent to observe regularities and recursive pattern in language.

Discourse Analysis: The study of different forms of discourse, written, spoken or signed language use.

EAP: Stands for English for academic purposes, that is Academic English the standard used at the University, e.g. in Ph.D. dissertation.

ESP: Stands for English for Specific Purposes; a wide taxonomy falls under this category, like English for Academic Purposes, English for Occupational Purposes, English for Professional Purposes, English for Vocational Purposes and so on.

ENDNOTES

1 In Corpus Linguistics studies words are usually divided in type and token. The latter indicates a word occurrence while the former indicates a word form. In the present corpus, as a whole, there are 573,513 tokens and 19,748 types.

2 www.springer.com/life+sci/journal/10764 (viewed on 25 July 2007).

3. www.elsevier.com/wps/find/journaldescription.cws_home/505615/authorinstructions (viewed on 30 July 2007).

4 www3.interscience.wiley.com/journal/36176/home?CRETRY=1&SRETRY=0

5 The International Committee of Medical Journal Editors: http://www.icmje.org/index.html#state

6 Cluster are a form of collocations where the collocating words are always found directly adjacent to each other in the same position. WordSmith Tools has a function named cluster, which finds clusters of a pre-defined length. In the present study, the length is set to three.

7 N-gram is defined as a collocation of words that is ‘n’ items long. A bigram is collocation of 2words, a 4-gram is a collocation of four and so on. (Freund & Willet 1982).

8 The MI score relates one word to another. For example, if problem is often found with solve, they may have a high mutual information score. Usually, the will be found much more often near problem than solve, so the procedure for calculating MI takes into account not just the most frequent words found near the word in question, but also whether each word is often found elsewhere, well away from the word in question. Since the is found very often indeed far away from problem, it will not tend to be related, that is, it will get a low MI score. (Scott 2004, WordsmithTools manual).

Chapter 39
Traditional and Virtual in Nigerian Oral English Pedagogy

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ABSTRACT

This study examines the emerging phenomena in Nigerian oral English pedagogy in the light of recent developments in Computer Mediated Communication (CMC) worldwide. It compares learners' sensitivity to the long established traditional classroom learning and the recently established internet-based (virtual) learning through a questionnaire methodology. Findings reveal that the influence of internet browsing and electronic dictionary-sourcing on oral English learners in Nigeria is becoming pronounced and the learning methodology preferred. The widespread American spelling pattern acquired through the aforementioned means is impacting learners' performance as sound-spelling compliant English words enjoyed 75% patronage despite previous traditional classroom culture. The study suggests that oral English teachers embrace new and integrative teaching methodologies for the teaching and assessment of learners in line with recent technological developments.

INTRODUCTION

Oral English Teaching and Learning in Nigeria

The English language has become greatly valued and adorned in Nigeria's Educational system. As remarked by Bamgbose, Banjo & Thomas (1995), "the dominance of English in formal and transactional communication is unchallengeable". In view of the multilingual nature of Nigeria, with more than 400 indigenous languages (Ufomata 1995), English is regarded as the only feasible and realistic choice for the nation now and in the foreseeable future. The greatest efforts expended on English language in Nigeria have been in the area of the Educational system, particularly in relation to Nigerian indigenous languages. Issues regarding model choice, examination assessment criteria, intelligibility and acceptability of the Nigerian variety etc. continue

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to attract heated debates on regular basis. In Nigerian educational system, English is both a medium of instruction for other subjects in all secondary schools as well as a subject from the first year in primary schools. In addition, a credit at O' levels in English is a prerequisite for admission into any higher institution in the country. The National Policy on Educational (NPE) has been constantly criticized and critiqued for its lack of clarity on issues relating to the teaching of English language in Nigeria (Bamgbose and Akere 1996; Jibril 1986). It is against this background that the teaching of Oral English was introduced into the curriculum about two and half decades ago.

Oral English is an important part of the language curriculum in Nigeria. The efficiency of the English language in the wider Nigerian society depends largely on the English Curriculum and the competence of the teacher. Little wonder therefore that what goes on in the classroom eventually shapes students outlook and output. However, emerging phenomena in the present age of computer mediated communication (CMC) (in which teaching and learning from both the internet and the traditional classroom is encouraged), are beginning to carve a niche for especially Oral English pedagogy in Nigeria.

On the global scale, Crook and Light (2002) have demonstrated the complexity involved in developing the cultural practices of learning and teaching with the support of Information and Communication Technology (ICT) at the university level. According to them, these practices of formal study are closely interrelated to practices that students are familiar with and which are well rehearsed as part of their everyday life. They find that developing new practices with computer mediated communication (CMC) is very difficult, something which is not due to students' lack of familiarity with the technology. On the contrary, they argue that the tools and their associated practices are not particularly well attuned to already existing practices. A range of studies have demonstrated positive effects of CMC tools on students' reasoning (Mercer et al. 2002; Arnseth 2004). On the other hand, studies which have focused on the relationship between talk in front of and through the computer do not provide any detailed examination of how computer supported collaborative learning (CSCL) interplay with existing institutional practices on a more detailed level, hence the relevance of this study. Lipponen (2001) also collaborating the importance of studies such as this, states that;

attempt to promote educational use of CSCL technology, and at the same time implement new pedagogical and cognitive practices of learning and instruction, appears to demand the utmost of both teachers and students. Many of the technical, theoretical, and pedagogical insights have not been transformed into widely adopted practices of teachers and students. (p. 11)

Teachers of oral English in Nigeria follow the pattern of teaching enunciated by Hewitt (2001, p. 14), where students are encouraged through teaching methodology to use 'knowledge-telling' strategies, meaning that they reiterate what they already know without analysing any new information (see also Soneye 2008). Collins (2001, p. 43), discusses how that students employ 'copy-delete' strategies when completing an assignment. Basically, this means that students copy the source material, (removing only the contextually irrelevant aspect) not being able themselves to pronounce such words or use the accent they have retained. It is to these various inadequacies that several linguists in Nigeria are responding; some of whose works we will be examining in the next section.

REVIEW OF LITERATURE ON ORAL ENGLISH PEDAGOGY IN NIGERIA

Problems of Oral English Pedagogy in Nigeria

Literature on the description of various aspects of oral English in Nigeria is steadily growing. Issues relating to its teaching and learning, problems bedeviling its effective practice in the two tiers, and previously suggested solutions are some of the important issues discussed under this section. Among the more detailed ones on this subject are Jibril (1982a)Bamgbose (1982) and Ufomata (1986, 1990a, 1990b).

Teaching and Assessment Methodology

Ufomata (1995:1-2), captures some of the predicaments faced by both teachers and learners of oral English in Nigeria, with regard to the absence of a well-defined teaching and assessment methodology;

As far as Oral English is concerned, no explicit policy statements have been issued. The mode of testing is still evolving as it changes from year to year…In general; students are required to perceive and produce vowel/consonant contrasts and to recognise contrastive grammatical uses of stress. They are also expected to recognise attitudinal functions of intonation. It is not clearly stated which accent is being tested. The entire Oral English examination has been known to be conducted in objective tests, with no perception or performance tests given. ... The results of a pilot study we conducted show that Oral English is not taught in most public schools and where it is taught at all, it is done inadequately and ineffectively. Most teachers have no training in the teaching of pronunciation and they cannot be said to represent suitable models for the contrasts being tested in the examinations.

A decade has passed since Ufomata reported the state of oral English teaching in Nigeria. The situation has taken a new turn for the worse since the emergence of Computer Mediated Communication (CMC) and the growth of American English around the globe. As posited by Kachru (1986;144), American English is accepted for the power and superiority which America as a nation has acquired in the areas of science, technology, commerce, military affairs, and politics and Nigerian youths (with the upsurge of American films and the internet) now use a lot of American slang (Awonusi 1994).

The medium around which teaching/learning of English has transpired has undergone a variety of changes over the years in Nigeria; from home schooling to traditional classroom (face-to-face) to distance education and being gradually receptive to computer mediated communication (CMC), known as the "virtual" classroom. Although, the medium has been evolving, the methodology has continued to be static. In a traditional medium (classroom setting), instruction is accomplished through lecturing and interaction of students/students and students/faculty and this is the widely used system in oral English teaching in Nigeria.

Model Choice

Scholars in many nations of the world, Nigeria inclusive, decry the continued use of Received Pronunciation (RP) as the English Language Teaching (ELT) model not just because it is being rejected in its natural domain, that is, among the native speakers themselves, (Awonusi, 2004), but also because forces globalization are compelling them to do so and there is the search for identity (Schneider; 2003). Every community seeks to educate its people in a language variety, which can faithfully convey its social needs. Linguists in Nigeria have reiterated the need for Nigeria to adopt an ELT model, in which both teachers and learners can effectively practice and take examinations.

Previous works on segmental phonology were preoccupied with gauging Nigerian performances in pronunciation against the British native speakers' (Soneye 2007). Nigerian speakers were often regarded as defective speakers of English because they could not articulate certain sounds in British English. In this era of globalization, this kind of comparison, which makes the native speaker almost a totem, has become obsolete; although attention is now recently being given to features of Nigerian spoken English (NSE) rather than to "errors" in it. However, the problem that arises in English Language Teaching (ELT) in Nigeria is the ambivalence demonstrated in the recognition of Nigerian usages and a reluctance to accept them in teaching and examinations. The major reason for this state of affairs is the fact that course books and standard reference work to turn to for what constitute correct and acceptable usages in Nigerian English accents and what do not, are yet unavailable.

Since the time that learners of oral English began having Nigerian teachers of English as their model and consequently Nigerian English accent as their input, it has become totally impracticable to have RP accent as learners output. Little wonder, that students fail woefully in oral English examinations which are based on RP accent as investigated by Soneye (2004b) and Oladele (2001) respectively. Prolific Nigerian scholars such as Atoye (1987), Amayo (1988) Dairo (1988) and Awonusi (1987) have been reacting to the desirability or otherwise of the RP as the continued canonical model for ELT in Nigeria, A good number of these scholars have stated with proofs why RP is no longer relevant and suitable for Nigeria.

These same arguments are advanced against RP in many other nations of the world including the United Kingdom. McArthur (2004) attests to the eroding impact that Estuary English is having on British RP accent. Rosewarne (1984:2) also shares this opinion about the impact of Estuary English on RP. Macaulay (1988) discussing the demise of native-speaker accents, in an article provocatively entitled 'RP R.I.P.?', pointed out a simple but surprising truth about this supposedly prestige accent. He says less than 3% of the UK population actually used it at that time, and the percentage was falling. He was one of the first people to question the idea of a native-speaker accent as a model or norm. He drew attention to another forgotten reality of RP, namely that it was an accent which entailed 'unnecessary' difficulties for learners of English, such as the 'r' after an e or an o which becomes a schwa /ə/ sound in the final syllable of words like *doctor* and *upper* or certain of its diphthongs as /uə/ in words like *tour* and *hour*.

If a native-speaker accent as RP is an undesirable and unrealistic goal to native speakers of English for the arguments outlined above, it is disappointing that Nigeria continues to stick to this model as the target, even amidst amazing virtual resources that abound in today's technology. Unfortunately, majority of Nigerian Oral English learners, continue to bear the scars of fruitless attempts to satisfactorily differentiate between *ship* and *sheep*, or tell how the words *hurt*, *hut*, and *hot diverge one from the other*. The problem continues to persist in the classrooms as the nation's educational system is yet to find a replacement for this model amidst Nigeria's multilingual setting.

The Duality of the Native Speaker Concept

Apart from the issue of a model choice, equally problematic is the long established ELT practices around the central figure of the omniscient 'native speaker'. Research in English studies (especially long essays in tertiary institutions) in Nigeria is often based on interference where the Nigerian second language speaker (L2) of English is adjudged a defective speaker of English. In this regard, the native speaker is elevated to the status of a totem. The effect has been an extremely enervating inferiority complex among Nigerian speakers or learners and even teachers who mispronounce or do not use a near-native accent; enervating, because it deprives Nigerians of vigor and vitality that comes from retaining one's sociolinguistic and cultural identity.

With the growth and popularity of American English all over the world, the 'native speaker' concept has been rendered somewhat blurred (Rajagopalan. 2004; Kirkpatrick 2007); although no one can deny that language teaching in general, and ELT in particular, historically evolved around the notion of the native speaker. Theories about language learning typically posited the figure of the native speaker as the ultimate state at which first and second language learners may arrive and as the ultimate goal in language pedagogy. Hence ELT practices were premised on the key belief that someone who wants to learn English as a second language does so in order to be able to communicate with the native speakers of English. However, whenever the phrase 'native speaker' is mentioned in this computer mediated learning age, some clarifications must be made regarding the set of native speakers being referred to. This is because there are very many sets, such as the British, the Americans, the Australians and the Canadians, all of whom are native speakers of English. They are all native speakers of English, yet they speak very different varieties. Besides, the idea that English belongs to everyone who speaks it has been steadily gaining ground. The reference to native speakers may soon become irrelevant, at least in the sense in which it is used in ELT presently. In fact, native speakers of English may turn out disadvantaged in the not-so- far future, because more and more people across the globe are using English for communication, usually nonnative speakers. Rajagopalan (2004) supports this view –

Does the native speaker continue to retain his/her former privileged status as an EFL professional? The answer is I think a resounding no. The native is no longer a model Speaker. A native speaker of English who is not well versed in world English (other varieties of English-emphasis mine) is most likely to find him/herself out in the linguistic cold. Pp.116-117

In Nigerian traditional classrooms, teachers have been using British English transcriptions such as the BBC (Roach and Setter; 2003) in especially words which are otherwise rhotic or flapped in American English; such words as *car, far, butter and water*. However, it is observed, (from my teaching experience in Nigerian Universities) that students transcribe and sometimes even pronounce certain words in the General American (GA) way. It is in the light of this phenomenon that this study undertakes an empirical investigation to assess the impact of computer mediated learning on the oral English rendition of Nigerian students.

International Intelligibility and Acceptability

Inherent in the problems earlier discussed are the problems of intelligibility and acceptability. One main reason often given for the continued use of RP as the model for ELT in Nigeria is international intelligibility, so that Nigerians can sound intelligible to other users, especially native speakers of English. But in recent times questions on intelligibility have become multidimensional. It is simply not the issue of Nigerians sounding intelligible to native speakers but also native speakers sounding intelligible to Nigerians and speakers of other varieties sounding intelligible to one another.

In the different studies carried out by Qiong (2004) and Youssef (2004) one has reasons to believe that American English is much more acceptable and intelligible to non native speakers of English than the British English, although further research is required to authenticate this claim. Nevertheless Nigerian English is synonymous to these other nonnative varieties in many ways.

For instance, there is the general substitution of the voiceless and voiced dental fricatives /Ɵ/ and /ð/ in the words *thin* and *these* with the alveolar fricatives /t/ and /d/ respectively. This means that what scholars refer to as standard Nigerian English (SNE), if properly identified and codified will be intelligible to many non-native and native speakers of English all over the world, as Bamgbose et al (1995) say. It is when Nigerian English is codified and overwhelmingly received in its immediate environment which is Nigeria that the process of its being internationally acceptable can then commence. However, the problem is the ambivalence in identifying what constitutes Standard Nigerian English Accent (SNEA), in the light of the diverse patterns of ethnic varieties spoken in the country.

Criteria for Identifying Standard Nigerian English Accent (SNEA)

How to identify Standard Nigerian English Accent (SNEA) has been a major problem in Nigeria. Based on the criterion of formal education of Nigerians, Banjo (1976) identifies four varieties of spoken English in Nigeria. [P10]The first variety which makes a distinction between English as a Foreign Language (EFL) and English as a Second language (ESL) (Wells; 2003) is exhibited by a group of people for whom spoken English is in effect a foreign, rather than a second language. The characteristic of this variety of spoken English is almost wholesale transference of the phonological, syntactic and lexical features of the Mother Tongue (MT) to English. This variety is socially unacceptable both within and without the country. The second variety has a fairly high degree of social acceptability, but not a high degree of international intelligibility. This type of spoken Nigerian English is characterized by phonological and lexical peculiarities. The Third variety is spoken by less than 10% of the Nigerian population and it is socially acceptable and internationally intelligible. Banjo states that the spoken English of this variety has RP deep structures and Nigerian surface features. The forth variety is spoken by Nigerians that have acquired English as their first language (L1). This variety is equal to standard British English (SBE) but seems unpopular or socially unacceptable within Nigeria. The third variety is used mostly among the Nigerian Elite or the educated populace.

The educated populace is also of different kinds and with varied qualities of proficiency as extensively discussed by Jibril (1982). There are lecturers, politicians, teachers in the primary and secondary schools and those in the Media institutions, to mention a few. There are bits and pieces of the spoken variety of English spoken by these groups in the works of many Nigerian linguists. In addition, there is the Hausa English (HE), the Yoruba English (YE) and the Igbo English (IE), which stem from the three major ethnic groups having been influenced by the indigenous languages of the specific environment in varying degrees and spoken by the educated in these regions. In other words, a Yoruba born oral English teacher will certainly influence their pupils differently from an Igbo or Hausa oral English teacher (see Igboanusi 2006 for details).

One will expect that, in view of the foregoing phenomena on the issues of model choice, absence of well-defined methodology for teaching and Nigerian oral English teachers' input, Nigeria should be a little more liberal in the assessment of its learners and speakers of English and utilize computer resources more; paying particular attention to comparative studies of accents rather than forcing an accent on the learner (Soneye 2004a & 2007). Previously some solutions have been suggested to Oral English Pedagogical problems in Nigeria. Bamgbose et al (1995) suggest that a conscious effort be made to modify the form and content of texts in respect of the standard Nigerian variety in the country. In this age in which many varieties of English are becoming increasingly Americanized; Nigerian English inclusive (Awonusi 1984), the uncertainty in pronunciation has also increased, hence, the need for this kind of study. In times past, Nigerian learners who undertook examinations in oral English were marked wrong whenever words like *news* and *furious* were transcribed without being palatalized, although *furious* often palatalized in BBC accent as stated in Roach, Hartman and Setter (2003:218). However, American variety is currently also a standard variety and some of its accents do not palatalize these words. Hence, 'news' is often pronounced as /nu:s/ in what Roach, Hartman and Setter (2003) describe as "Network English, similar to General American (GA) accent" (Editor's preface to the 16th edition) without the /j/ symbolizing a glide or palatal sound.

METHODOLOGY AND PROCEDURE FOR DATA GATHERING

This study examined the sensitivity of forty oral English learners to Computer Mediated Learning (CML), within the larger concept of Computer Mediated Communication (CMC). The study is similar to the work done by Ashkeboussi (2001). The respondents have been exposed to three years of traditional classroom oral English learning alongside exposure to internet browsing and online oral English assignments, in a university in Nigeria. The model consistently used as target to which students aspire in classroom teaching remains the Received Pronunciation (RP), since Nigeria has had a strong contact with the British consequent upon her colonization by the British, the 'owners' of the variety. The respondents' attitudes to especially CML and oral English learning generally were also obtained through a questionnaire survey.

Dictionary-sourced words with both British Broadcasting Corporation (BBC) and General American-like accent known as Network English from Roach et al (2003) were administered as test items to forty University Students of English. The questionnaire was divided into three sections. Section 1 consists of 10 questions patterned after a 4-Likert scale marking agreement and disagreement, (agree, disagree, strongly agree, and strongly disagree). Section 2 comprised 10 other English words dictated through Read-Aloud (RA) to the respondents to ascertain their choice or where they would likely tilt in terms of British and American spelling. The ten words were *anesthesia, encyclopedia, fiber, quarrelling, traveled, draught, Plough Globalization, maneuver* and *Programme.* Sections 3 comprised actual oral skill tasks on phoneme counting and rhyme matching which required respondents' sensitivity to phonemic identification in both BBC and GA-like accents through transcriptions. The assessment procedure and sensitivity tasks were patterned after Moggadam and Senechal (2001) and the phonological sensitivity tasks identified by Hempenstall (2007), upon which users of any language can be assessed (see appendices).

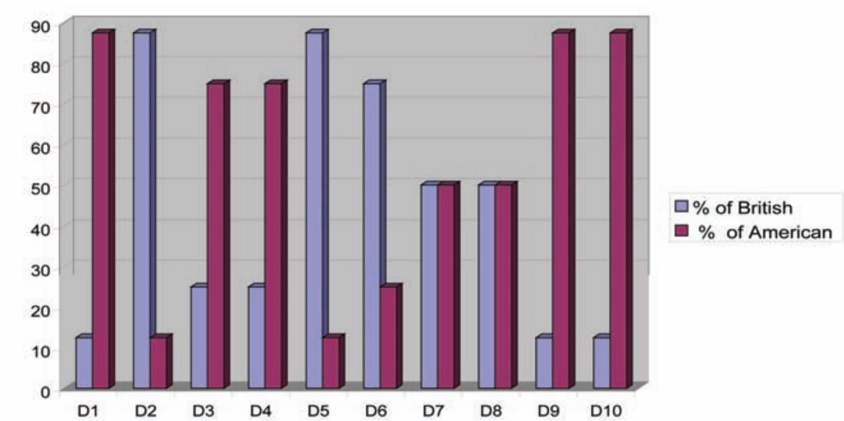
ANALYSIS OF DATA AND DISCUSSION OF FINDINGS

DISCUSSION OF FINDINGS

Table 1 reveals the attitudes of respondents to certain core issues in oral English teaching in Nigeria. Although 75% of respondents agree that they like the way they use Nigerian accent (Q1), yet, 87.5% (Q2) of them desire to reach the model chosen as target, which is British RP. Despite respondents 'reluctance' to want to speak like the Americans, as evident in their choices on table 1 (Q3), 50% of the English words given were spelled the American way; (Table 2), this certainly is the influence of internet browsing, the use of Electronic dictionaries (Table 1, Q8) and virtual language center, online.

It is observed that the influence of internet browsing and electronic dictionary-sourcing for oral English learning in Nigeria is rapidly be-

Figure .1 Nigerian oral English respondents' sensitivity to British and American spellings



coming a parallel teacher, (in that some students do not attend classes regularly because they feel the internet via computer can supply the needed knowledge) instead of complementing the already existing traditional classroom teaching. One of the reasons for this development is the reluctance of teachers to embrace new methodologies for teaching and assessment of students in line with recent technological developments. Some scholars are of the opinion that traditional classroom teaching is 'tried' and 'true' and that within the traditional classroom, teachers can maintain con-

Table 1. Nigerian oral English learners" responses to issues of accents

S/N	Questions	Agree (A)	Strongly Agree (SA)	Disagree (DA)	Strongly Disagree (SD)
Q1	I speak English as a Nigerian and like it that way	50%	25%	12.5%	12.5%
Q2	I wish I could speak like the British	37.5%	50%	0%	12.5%
Q3	I wish I could speak like an American	12.5%	37.5%	50%	12.5%
Q4	The way I pronounce words doesn't bother me as I make my point	12.5%	0%	25%	62.5%
Q5	I look up unfamiliar English words in pronouncing dictionaries	0%	0%	37.5%	62.5%
Q6	I look up unfamiliar English words in any hard copy dictionary	50%	37.5%	0%	12.5%
Q7	I look up unfamiliar English words on the internet	0%	12.5%	62.5%	25%
Q8	I look up unfamiliar English words in electronic dictionary	62.5%	12.5%	12.5%	12.5%
Q9	I skip or ignore unfamiliar English words	12.5%	0%	37.5%	50%
Q10	I depend on spellings of unfamiliar English words for Pronunciation	87.5%	12.5%	0%	0%
Q11	I guess pronunciation of unfamiliar English words from the spelling of similarly spelt words	62.5%	25%	12.5%	0%
Q12	I prefer the accent of my classroom teacher to the native's online	0%	25%	37.5%	37.5%
Q13	I prefer the British accent online to my classroom teachers.	25%	12.5%	37.5%	25%
Q14	I prefer the American accent online to my classroom teacher's	0%	12.5%	75%	12.5%

Figure 2. Respondents' results in the rhyme matching task for British and American varieties of English

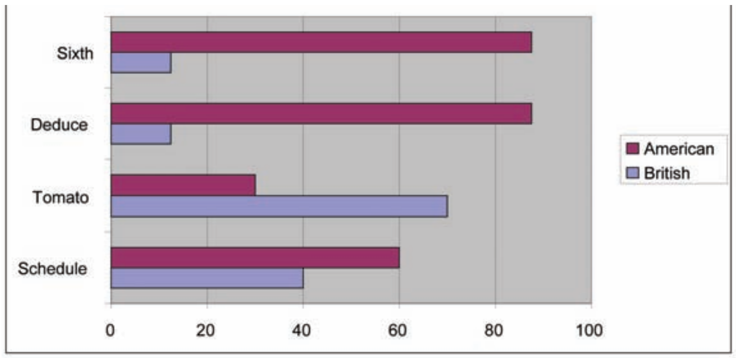


Table 2. Usage patterns of British and American spellings by Nigerian oral English learners'

S/N	British spelling		American spelling	
	Words	% of British	Words	% of American
D1	Anesthesia	12.5	Anaesthesia	87.5
D2	Encyclopaedia	87.5	Encyclopedia	12.5
D3	Fibre	25	Fiber	75
D4	Draught	25	Draft	75
D5	Travelled	87.5	Traveled	12.5
D6	Programme	75	Program	25
D7	Plough	50	Plow	50
D8	Fulfil	50	Fulfill	50
D9	Manoeuvre	12.5	Maneuver	87.5
D10	Globalisation	12.5	Globalization	87.5

trol by making it organized and orderly. However, students must learn to find solutions to problems cooperatively, as they would in the real world and this they do through the use of computer mediated learning, which is expected to supplement traditional teaching.

It is also observed from Table 2, that English words which are sound-spelling compliant, which are patterned after American spellings enjoyed higher patronage from learners of oral English in Nigeria. D4 and D7 on Table 2 revealed that 75% of the respondents spelled the word draught as draft and 90% of them correctly phonemically numbered the word as having 5 phonemes as against 75% when spelled the British way (draught) and numbered it as 4 phonemes /drɒt/. The respondents were probably influenced by the pronunciation of the word *caught.* It is particularly amazing that, despite the long established relationship of Nigerian English learners with British English, there could still be a marked shift from British English or worse still lack of proficiency in phonological tasks such as rhyme matching and phoneme counting. 25% of the respondents were

Table 3. Nigerian oral English learners' phoneme counting and rhyme matching tasks for BBC and GA accents

S/N	WORDS	Standard Number of Phonemes in BBC and GA		❖ Rhyme matching		RESPONDENTS' RESULTS					
						Phoneme counting in %			Rhyme matching		
		BBC	GA	BBC	GA	BBC	GA	*NV	BBC	GA	*NV
A1	**Lieu**tenant	9	8	|eftənənt	lu:tenənt	40	40	20	60	20	20
A2	Pl**ough**	3	3	plau	plau	50		50	75		25
A3	Dr**aught**	5	5	drɑ:ft	draft	75%		25%	75		25
A4	**Sch**edule	6/5	6	^ʃedju:l	skedju:l	50	50	-	40	60	-
A5	To**ma**to	6	6	təma:təu	təmeıtou	100		-	70	30	-
A6	De**du**ce	6	5	dɪdju:s	dɪdu:s	30	70	-	12.5	87.5	-
A7	Sixth	5	6	sıksΘ	sıkstΘ	10	40	50	12.5	87.5	-
A8	Pl**ow**	4	4	plau	plau	90		10	90		10
A9	D**raft**	5	5	drɑ:ft	drɑ:ft	90		10	90		10 -

*NV = Nigerian variant

Learners were required to match the underlined graphemes in bold prints with whichever words they sound like among a set of supplied options stated in the appendix.

still unable to correctly rhyme the word plough with 'cow' /au/ instead they assumed the word rhymes with cough /kɒf/.

Nigerian oral English teachers have neither encouraged nor thoroughly integrated virtual classroom methodology into the teaching process, (Soneye 2004b). As teachers, we must turn to the technologies available in the field to facilitate the oral assessment process. Students are widely given to browsing and learning through CMC and as revealed by the brief empirical analysis in this study, they bring what they have learnt into assignment and assessments, regardless of the teacher's sticking to a particular model. There are reasons to make one believe that students tilt towards American English pronunciation and spellings is an unconscious move, as depicted in Table 1. The major problem posed by these phenomena is the ambivalence in attending to especially oral English tasks and the parameters for assessing the correctness or otherwise of such tasks.

CONCLUSION AND RECOMMENDATIONS

In view of the foregoing and the prevailing influence of American English as a parallel standard form in Nigerian oral English usage, Nigerian students can no longer to adhere to the traditional classroom teaching. Certainly no one will suggest that web-based resources supplant the traditional classroom learning process but an integrative teaching methodology that will accommodate recent linguistic development will be a plus. The following recommendations are therefore pertinent to the effective teaching of oral English in Nigeria:

- The Nigerian policy on education should properly identify the learning objectives of oral English in the country.
- A more appealing, consistent, and efficient learning environment, learning activities, and assessment tools should be provided for the teaching of oral English to students

in Nigeria, in the face of current technological advancement.

- Both traditional and technological mediums are able to attain effective instruction for oral English teaching and learning which is evolving on daily basis, therefore the two should be adopted and clearly designed to fit into the sociocultural needs of the users.
- There should be a shift from a fruitless imitation of a any model to a comparative study of various models while undertaking effective study and codification of Nigerian English variety.

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KEY TERMS AND DEFINITIONS

Computer-Mediated Learning: Any form of learning that is mediated by computer networks through discussion forums, chats, e-mails, and so forth.

English as a Foreign Language: (EFL) These are a group of learners or speakers in a primarily non-English speaking country.

English as a Second Language: (ESL) These are a group of learners learning English to enable them participate in the public life of a nation where English is an official language. EFL and ESL are concepts that both refer to users of English as a second language and the tags EFL and ESL have lately become controversial. Some linguists refer to both as TESOL. However, some still retain a distinction between them, though minute. (See Wells 2003).

English Language Teaching: (ELT) This expression is used to capture the whole concept of formal teaching of English

Oral English: It can also be described as spoken English

APPENDIX

Questionnaire

Dear Respondent,

This questionnaire is designed to elicit information on a current research regarding the attitude of learners of Oral English to Computer mediated learning. I should appreciate your effort in supplying the necessary information which would be treated in confidence.

Section 1: Please Choose The Option That Best Represents Your Opinion Out Of The 4-Likert Options.

1. I speak English as a Nigerian and like it (a) agree (b) strongly agree (c) disagree (d) strongly disagree
2. I wish I could speak like the British (a) agree (b) strongly agree (c) disagree (d) strongly disagree
3. I wish I could speak like the American (a) agree (b) strongly agree (c) disagree (d) strongly disagree
4. The way I pronounce words doesn't bother me, as long as I make my point (a) Agree (b) disagree (c) strongly disagree (d) strongly agree
5. For English words I'm not familiar with I look up their pronunciation in the pronouncing dictionary
6. For English words I'm not familiar with I look up pronunciation in any (hard copy) general dictionary, agree (b) strongly agree (c) disagree (d) strongly disagree
7. For English words I'm not familiar with I look up pronunciation on the internet or virtual language center. Agree (b) strongly agree (c) disagree (d) strongly disagree
8. For English words I'm not familiar with I look up pronunciation in Electronic talking dictionary (a) agree (b) strongly agree (c) disagree (d) strongly disagree
9. For English words I'm not familiar with I look up pronunciation in Skip or ignore it (a) agree (b) strongly agree (c) disagree (d) strongly disagree
10. For English words I'm not familiar with I depend on the spelling for pronunciation (a) agree (b) strongly agree (c) disagree (d) strongly disagree
11. For English words I'm not familiar with I look up pronunciation in Guess from pronunciation of similarly spelled words (a) agree (b) strongly agree (c) disagree (d) strongly disagree
12. I prefer the pronunciation of my classroom teacher to the online British model (a) agree (b) strongly agree (c) disagree (d) strongly disagree
13. I prefer the British pronunciation model online to that of my classroom teacher (a) agree (b) strongly agree (c) disagree (d) strongly disagree
14. I prefer the American pronunciation model online to that of my classroom teacher (a) agree (b) strongly agree (c) disagree (d) strongly disagree

Section 2: Phoneme Counting and Rhyme Matching Task

Identify the number of phonemes in each word and identify the word that rhymes with the underlined graphemes from the list of options given.

Example: Darkness6 phonemes and rhymes with 'knees' (a. nest b. knees c. nurse)
(Since it is pronounced /da:knis/)

1. **Lieu**tenant ________ (a) left (b) loo (c) dew
2. Pl**ough** _________ (a) cough (b) Cow (c) low
3. Dr**aught** ________ (a) raft (b) rot (c) route
4. **Sch**edule __________ (a) shed (b) sketch (c) chore
5. To**ma**to _________ (a) market (b) May (c) mat
6. De**du**ce __________ (a) due (b) do (c) doe
7. Sixth ___________ (a) seeks (b) sees (c) sick
8. Pl**ow** _____________ (a) cow (b) low (c) cough
9. D**raft** _____________ (a) rough (b) raft (c) rot

Section 3: Verification Task: Dictation Exercise

Chapter 40
From CMC Technologies to Social Participation Technologies

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ABSTRACT

This chapter characterises the evolution of computer-mediated communication (CMC) technologies into social participation technologies (SPTs). With respect to the latter, it explores blogs, social networking sites (e.g., Facebook and MySpace), media sharing sites (e.g., Flickr and YouTube), virtual worlds (e.g., Second Life), massively multiplayer online games (e.g., Lineage and World of Warcraft), and mashups in varying degrees. It also contends that SPTs serve as instances of inscription and attention technologies in relation to users employing them. In addition, it delineates new genres, changing discourses, emerging literacies, online socialised learning and changing learners associated with SPTs. Against this background, the chapter provides, first, a short overview of the evolution of CMC technologies into SPTs. Second, it presents a case for new genres, changing discourses, emerging literacies, online socialised learning and changing learners in the context of SPTs. Last, it outlines some of the future trends likely to influence SPTs in relation to genres, discourses, literacies and online socialised learning.

INTRODUCTION

Several studies have investigated the role played by and the utility of computer-mediated communication (CMC) in the area of digital communication. Many of these studies relate mainly - though not exclusively - to second and foreign language education. Such studies have explored various forms and applications of CMC. For instance, these CMC forms and applications include: asynchronous and synchronous CMC (Herring, 2004; Thorne & Payne, 2005); computer-mediated discourse and CMC corpora (Beißwenger & Storrer, 2007); computer assisted language learning (Kern, 2006; Luzón, 2007); device-agnostic forms of CMC and intelligent computer-assisted language learning (Thorne & Payne, 2005); and emerging digital technologies (e.g., blogs, wikis, social networking

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sites, media sharing sites, virtual worlds, and online games) (Huang, Chao & Lin, 2007; Luckin, Logan, Clark, Graber, Oliver, Mee et al., 2007; Steinkuehler, 2007; Thorne, 2008a). Inevitably, with the passage of time, classical CMC technologies such as newsgroups, electronic bulletin boards, discussion lists, electronic mails, Multi-User Dungeons (MUDs), MUDs, object oriented (MOOs), chatrooms and computer conferences have either converged with or transitioned into emerging digital technologies.

The current chapter builds on and adds to digital communication as it relates to, particularly, emerging digital technologies. These emerging digital technologies are represented in this case by what the chapter refers to as social participation technologies (SPTs). In this context, the chapter has three related goals. First, it delineates the evolution of CMC technologies into SPTs. With reference to SPTs, it focuses on blogs, social networking sites (e.g., Facebook and MySpace), media sharing sites (e.g., Flickr and YouTube), virtual worlds (e.g., Second Life), massively multiplayer online games (e.g., Lineage and World of Warcraft), and mashups. Second, it argues that while blogs, social networking sites, media sharing sites, virtual worlds, massively multiplayer online games, and mashups operate as instances of SPTs, the latter, in general, serve as instances of inscription and attention technologies. Third, against this backdrop, the chapter also investigates new genres, changing discourses, emerging literacies, online socialised learning and changing learners associated with SPTs.

FROM COMPUTER-MEDIATED COMMUNICATION TECHNOLOGIES TO SOCIAL PARTICIPATION TECHNOLOGIES: A CONCISE OVERVIEW

In its restricted sense, CMC is a term referring to communication that occurs between human beings through computer networks. In this sense, it is a combination of telecommunication technologies and computer networks. The latter can be local or global networks. The network most commonly associated with CMC is the Internet - which in its own is a multi-layered network leveraging different modes or channels of communication. Classically, CMC can be asynchronous (*at different times*) or synchronous (*at the same time*). Traditional modes of asynchronous CMC include newsgroups, electronic bulletin boards, discussion lists, and emails which are predominantly text-based. The typical synchronous end of the CMC spectrum consists of chatrooms, Multi-User Dungeons (MUDs), MUDs, object oriented (MOOs) and computer conferences, which while text-based, can be graphical and aural (Siitonen, 2007).

With the advent of digital multimedia technologies and hybrid and convergent communication applications, new generation communication and participation technologies have emerged. These new technologies are part of digital communication and fall under a collective term which this chapter refers to as social participation technologies (SPTs). They are new generation CMC technologies into which classical CMC technologies have evolved. In this sense, they must be seen within the broader context of the evolving Web. They allow users to communicate by leveraging their collective participation, their mass collaboration and their social interactivity. There are three aspects associated with SPTs. First, they are not solely computer-driven and Internet-powered in the classical CMC sense. Instead, they are available across diverse devices (e.g., mobile phones - especially smartphones - and game consoles) and within convergent applications such as blogs, social networking sites, instant messaging tools, media sharing sites, massively multiplayer online games (MMOGs), and so on. In the case of convergent applications, for instance, a set of hybrid social software technologies such as blogs, podcasts, social networking sites (e.g., Facebook and MySpace), media sharing sites (e.g., Flickr and YouTube), MMOGs, virtual worlds, and voice over Internet protocol (VoIP) can embed two or more applications, thereby providing cross-application and cross-platform offerings. One typical example is Facebook which has convergent offerings for bulletin boards, instant messaging (IM), and email, and for posting pictures and video clips (see Muñoz & Towner, 2009). Therefore, these technologies tend to be device or network neutral. Second, SPTs are not purely uni-modal and bi-modal. They are, rather, multimodal. That is, they combine different modes (e.g., text, graphics, images, audios, and videos) simultaneously. Again the case in point is Facebook's in-built multimodal features. Third, SPTs are polycontextual: they involve multiple digital contexts such as blogging, instant messaging, chatting, *Twitterring*, networking, gaming, imaging, content creating/(re)mixing and exchanging, and photo/video capturing and distributing. These multiple contexts become new vistas of social interaction as well as value-added instances of digital communication.

Given the points highlighted in the preceding paragraphs, this chapter contends that most CMC technologies have evolved into SPTs either as convergent applications or as stand-alone complementary applications. For example, newsgroups, electronic bulletin boards, discussion lists, email, chatrooms (e.g., Internet Relay Chats (IRCs)), MUDs, MOOs, and computer conferences complement most SPTs in varying degrees. Email, in particular, not only augments SPTs, but also still plays a critical role in the SPT era. Above all, most traditional CMC technologies seem to have evolved into advanced or refined SPT forms. For instance, newsgroups, electronic bulletin boards and discussion lists have evolved into blogs and social networks; chatrooms into IM; and MUDs and MOOs into virtual worlds or virtual computer games such as massively multiplayer online games (MMOGs) or massively multiplayer online role-playing games (MMORPGs). And computer conferencing seems to have transitioned into either video and virtual conferencing or mobile phone video conferencing.

In this evolutionary process, traditional CMC technologies are being integrated into SPTs in retooled and repurposed forms. At the same time, new digital communication technologies emerge as part of SPTs (e.g., podcasts and media sharing sites). As this twin process of evolution and integration unfolds, the roles played and the functions served by SPTs correspondingly change, while new roles and new functions also emerge. This is particularly the case with SPTs such as blogs, podcasts, social networking sites (SNSs) (e.g., Facebook and MySpace), media sharing sites (MSSs) (e.g., Flickr and YouTube), virtual worlds, IM, and voice over Internet protocol (VoIP). They are retooled as part of networked SPTs.

One significant feature of SPTs is that they operate as *inscription technologies* in relation to users employing them. Inscription technologies (Lenoir, n.d.) are technologies that allow users to inscribe or represent their feelings, thoughts, views and opinions in a written, oral, graphic, pictorial, visual, iconic, digital, or numeric form, or in a combination of two or more of these forms. They also enable users to inscribe or represent aspects of their features and attributes - real or unreal - in any of these forms. In this sense, they are representational technologies. Based on this, most - if not all - of the SPTs identified in this chapter are instances of not only inscription technologies but of digital inscription technologies as well. Examples of the latter are SNSs (e.g., Facebook and MySpace) and MSSs (e.g., Flickr and YouTube). As inscription technologies, SPTs distinguish themselves as digital lifestyle technologies for their users.

The other important feature of SPTs is that they serve as *attention technologies*. As attention technologies, SPTs vie for and tend to both grab and monopolise the attention of their users - particularly the so-called digital natives (see Crook, Cummings, Fisher, Graber, Harrison, Lewin et al., 2008; Jukes & Dosaj, 2006). They are technologies on which digital natives spend much of their personal time in relation to other competing technologies. So, in an environment saturated with unlimited choices and pressed for time, SPTs vie for users' attention, competing harder than ever for users' touchpoints. In this sense, attention becomes a precious and scarce commodity in the attention economy (see Iskold, 2007).

NEW GENRES, CHANGING DISCOURSES AND EMERGING LITERACIES

This section delineates new genres, changing discourses and emerging literacies engendered by SPTs as instances of new generation CMC technologies. It also outlines how SPTs contribute to online socialised learning (OSL). Most importantly, it characterises how learners – especially the so-called digital learners – are changing in keeping with the evolving SPTs. These digital learners possess a raft of attributes and digital skills serving as their key differentiators in the SPT environment. Above all, the section highlights some of the learning approaches associated with both OSL and this new cohort of learners.

New Genres: Digital Genres

The advent of SPTs heralds new forms of genres called digital genres. Such digital genres are engendered and encoded by the following SPTs: blogs; wikis; podcasts; instant messages; social network sites; media sharing sites; virtual worlds; massively multiplayer online games (MMOGs); and mashups. Some of these genres are interest- and attention-driven genres as they tend to infectiously capture the interest and attention of users. As a concept, *genre* is both nebulous and elusive to define: it has multiple definitions and various classifications (Santini, 2007a, 2007b). However, there are certain factors that have to be taken into account in respect of digital genres. These are: medium; multi-modality (Luzón, 2007); hybridism; a zero-to-multi genre classification scheme; reproducibility; adaptability; novelty; evolution (Santini, 2007a, 2007b); and genre ecologies (Kwasnik & Crowston, 2005). These factors typify the technologies through which these digital genres are realised.

First, digital genres need to be understood and analysed within a medium in which they occur. This is more so as a digital medium largely determines how a genre is composed, distributed and appropriated. Second, digital genres are multi-modal. That is, they represent information in multiple modes: either as text, images, graphics, audios or videos; or as a combination of more or all of these modes (Dalton, 2007; Luzón, 2007). This leads to the third factor - hybridism. The latter refers to the fact that digital genres are not mutually exclusive. In effect, different digital genres can be merged - and in some cases, fused or embedded - into a single document, giving rise to hybrid forms (Santini, 2007a). Characteristic examples are SNSs such as Facebook and MySpace, MSSs like Flickr and YouTube, MMOGs (e.g., Lineage and World of Warcraft), and mashups (e.g., Google Earth and HealthMap).

Fourth, is a zero-to-multi-genre classification scheme. This factor relates to a scheme allowing a zero/no genre or a multi-genre approach - in addition to the traditional one-genre classification - to genre analysis. In particular, a zero genre approach accounts for Web pages that do not conform to any genre. By contrast, a multi-genre classification accounts for Web pages containing multiple genres (Santini, 2007a, 2007b). Blogs, SNSs (e.g., Facebook and MySpace) and mashups (e.g., Google Earth and HealthMap) serve instances of such genres.

Fifth, are reproducibility and adaptability as generic features. The former concerns genres reproduced or replicated from existing genres. Such genres are *extant* in nature or are based on existing ones (Santini, 2007a). These digital genres tend to bear certain elements of their precursors. The case in point is blogs. The latter has to do with variant genres adapted from existing ones. Blogs and mashups exemplify this feature. Sixth, are novel and evolving digital genres. Novel genres are new genres displaying features that are dissimilar to existing ones. Two classic examples are in-world gaming within a virtual world like Second Life and an in-game metagaming characterising a MMOG such as Lineage. This factor leads to the next generic attribute - evolution. Genre evolution is about novel genres that evolve from replicated genres through the variants of the latter (Santini, 2007a). This quality reflects the emergent nature of digital genres. Thus, evolving genres are emergent in nature. As emerging genres, they then both typify archival genres and represent a transitional stage in the overall genre evolution (Santini, 2006).

Last, is the notion of genre ecologies which relates directly to the preceding point. This notion encompasses the view that digital genres depend on each other, co-exist with each other, and draw strength from each other in the ecology of genres. It refers to a system of interdependent genres. In this system, genres evolve, slowly or rapidly, over time. Some tend to be replaced by others, while new ones come into existence. Moreover, the notion of genre ecologies in the context of digital genres entails two concurrent processes. One is that traditional genres migrate to the Web; the other is the emergence of new genres unique to the Web. Again these genres can merge, divide, transform, or evolve (Kwasnik & Crowston, 2005). Examples here are blogs. They are diaries/journals that have migrated to the Web. At the same time, they are capable of merging, transforming and evolving - as when they incorporate voice (audioblogs or podcasts), photo files (photoblogs), and video files (videoblogs) (Dalton, 2007) or integrate other genres such as wikis, SNSs, and mashups. Thus, as new digital communication technologies converge into SPTs, so do digital genres as well.

Related to digital genres is the notion of genres of participation. This idea has to do with the view that digital genres associated with SPTs are part of the culture of participation (see Ito, Horst, Bittanti, boyd, Herr-Stephenson, Lange et al., 2008; Thorne, 2008b) embodied and mediated by SPTs themselves. Four aspects are relevant here. Genres of participation are grounded on communicative practices; they reflect sociability - they are embedded in interpersonal and social relations. They are also shaped and driven as much by participants as by the specific SPTs through which they are mediated. Moreover, they are, in the case of Facebook, MySpace, Flickr and YouTube, both friendship- and interest-driven (Ito et al., 2008).

Changing Discourses

The picture painted in the preceding paragraphs concerning digital genres equally applies to discourses. As new digital communication technologies transform into SPTs - and as the latter also evolve as part of the Social Web - so do also discourses that are part of them. *Discourse* is used in this chapter in two complementary senses. The first sense relates to instances of spoken or written digital language use. Encapsulated in this notion of discourse are other semiotic elements such as symbols, pictures, images and graphics (dos Santos, McAndrew & Godwin, 2007). The second sense is about discourse as a social practice. Thus, in their plural form, discourses are particular ways, behaviours and dispositions associated with online users: they are ways of seeing, thinking, talking, behaving and acting. Additionally, they constitute reality, knowledge, identity and subjects (see dos Santos et al., 2007). In this case, digital discourses are discourses pertaining to SPTs. Thus, SPTs are increasingly altering the classical conceptions of discourse, setting a platform for discourse transformation. Simultaneously, they are rapidly giving rise to both new forms of expression and new ways of social interaction.

Blogs and the Changing Digital Discourses

One area of SPTs in which discourse evolution is taking place and which is characterised by the changing digital discourses is blogging. One such example is the discourse of expressivity which is an instance of hybrid digital discourse. Two basic typologies of blogs - personal and topical blogs (Dalton, 2007) - are critical in the encoding of this hybrid discourse.

The Discourse of Expressivity

Within blogs as a genre of digital communication, the discourse of expressivity is related to using blogs as a vehicle for self-expression, self-reflexivity and self-disclosures. Correspondingly, this is also the discourse of self-reflexivity and self-disclosure. Personal blogs, especially, play a pivotal role in encoding this form of discourse. In most cases, this sub-genre of blogs tends to foreground and reflect on the personal in terms of information, experiences, feelings, thoughts, views, opinions and commentaries. If text-based, this sub-genre mostly involves a much more casual, personal language manifesting its digital expressive nature. Even when leveraging other modes of digital interaction such as images, gestures, symbols, and audio and video materials, personal blogs allow bloggers to infuse these modes of interaction with personal voices, personal narratives and user-created content (e.g., photos, videos, and artwork). This then gives rise to multimodal content and multimodal discourses. In this way, personal voices, personal narratives and multimodal discourses become woven into bloggers' personal/local discourses as part of the discourse of expressivity.

However, there are also instances whereby personal blogs blend the personal, the private and the public. For example, once the personal and private voice of bloggers is in dialogue with the voices of others in a given blogosphere, it enters the public domain and becomes part of ongoing online public/global discourses. So, moving self-expressions from the personal and private realm to the public realm makes those self-expressions be part of public participation (see Rheingold, 2008). Once bloggers' self-expressions enter the public domain, they constitute themselves into participatory discourses. In this manner, personal blogs as tools of interpersonal communication becomes tools of mass communication and mass participation. As Dalton (2007) contends, more often than not, personal blogs are geared towards celebrating and affirming the mundane or the banal. At the same time, they tend to conflate the frivolous and the serious.

Most importantly, however, blogs further entail social, academic and professional discourses, thereby blending and conflating the social, the academic and the professional. This is one of the affordances provided by topical blogs. That is, leveraging this sub-genre, bloggers across a wide spectrum of the blogosphere are able to blog about diverse social, academic and professional issues. Such issues may range from personal, family and community matters to educational, medical and military matters. Moreover, social, academic and professional discourses may also embody elements of expressivity. This means, therefore, that within the personal and topical blogospheres, private and public discourses, local and global discourses, participatory discourses, frivolous and serious discourses, and social and academic discourses are framed and embedded within the discourse of expressivity. All this points to one thing: within the personal and topical blogospheres, different digital personal and topical discourses and different discourse communities both converge and diverge. That is, within SPTs, blogs represent a melting pot of convergent and divergent personal and topical expressive discourses.

Social Networking and Media Sharing: Digital Discourse Transformation

Another area of SPTs characterised by digital discourse transformation is social networking and media sharing sites. An example of the former is social networking sites (SNSs) such as Facebook and MySpace while the latter is exemplified by media sharing sites (MSSs) like Flickr and YouTube. In line with (Fuchs, 2009), SNSs leverage integrated social media and information and communication technologies. These include: connection lists, guest books, discussion groups, webmail, digital images and digital videos. For their part, MSSs such as Flickr and YouTube are media-rich file distribution tools, which in the case of YouTube, operate as video-playback enabled sites. Accordingly, SNSs and MSSs are another instance of genres within SPTs. Among the digital discourses typifying SNSs and MSSs are networked and distributed digital discourses. As is the case with blogs, these discourses are also hybrid discourses.

Networked and Distributed Digital Discourses (NDDDs)

Both SNSs and MSSs, as instances of SPTs, serve as social participation and collaboration platforms. Most significantly, underlying these SPTs are networks: networks or architectures of participation, collaboration, sharing and connections on the part of users. Thus, they enable users to communicate based on these networks or architectures. Networks (of users, participants, friends, groups or communities) constitute themselves into an ecosystem of networks in which the value of each network is, as highlighted by Mayfield (2005), perceived to be proportionate to: (a) the number of subscribers; (b) the number of links; and (c) the number of groups. They are also based on the notion of *six degrees separation* – the view that everyone in a network is separated from everyone else by no more than six intermediate personal relationships. Overall, this notion encompasses the view that individuals are just a few steps apart in a global social network (Churchill & Halverson, 2005). Most crucially, both SNSs and MSSs enable user to leverage a digital relationship economy with respect to the architecture of participation. All of this leads, in varying degrees, to networked and distributed digital discourses (NDDDs) emanating from participatory and relational networks.

NDDDs are distributed in that they occur within and across geographically, spatially and temporally dispersed networks of participants and machines. These dispersed networks are, as pointed out by Ito et al. (2008), networked publics that place emphasis on the participation of distributed social networks. For instance, SNSs such as Facebook, MySpace, Bebo and LinkedIn connect virtually and digitally distributed participants with other participants (also virtually and digitally dispersed) based on online friendships, similar interests, common professional topics, or mutual acquaintances. Similarly, MSSs such as Flickr and YouTube bring together globally dispersed virtual networks of photo and video sharing communities of users. So, while SNSs and MSSs share some of the blog discourses outlined earlier, they are more notable for their NDDDs. Central to NDDDs are two related notions, sociality (Fuchs, 2009) and interactivity (Rafael & Ariel, n.d.), which are two of the defining characteristics of SNSs and MSSs. Sociality, as argued by Fuchs (2009), has three variables, cognition, communication and cooperation attached to it. These three variables together with their corresponding technologies belong to Web 1.0, Web 2.0 and Web 3.0 (the Social Web) respectively as shown in *Figure 1*. Interactivity, following Rafael & Ariel (n.d), encompasses among other things, communication, social presence, telepresence and sociability.

Built into NDDDs are participatory and collaborative discourses. These discourses are a direct result of the physics of participation, collaboration, sharing and connections underpinning both SNSs and MSSs. In particular, they reflect what

Figure 1. Table of the three variables constituting sociality and the corresponding technologies to which they belong (Adapted and modified from Fuchs, 2009) (o2o=one to one; o2m=one to many; m2m=many to many)

	Synchronous	***Asynchronous***
Cognition (Web 1.0)	Peer-to-peer networks for file sharing (o2o, m2o, o2m) Chatrooms (o2o, o2m, m2m) Video conferencing systems (o2o, o2m, m2m) Multi User Dungeons (MUDs) (o2o, o2m, m2m) MUDs Object-Oriented (MOOs) (o2o, o2m, m2m)	Websites (o2m) Online journals (o2m, m2m) Online archives (o2m, m2m) e-Portfolio (o2m) E-mail (o2o, o2m) Newsgroups (o2m, m2m) Electronic bulletin boards (o2m, m2m) Web-based discussion lists (o2m, m2m)
Communication (Web 2.0)	Instant messaging (o2o, o2m) Voice over IP (o2o, o2m, 2m)	Blogs (o2m, m2m) Photoblogs/Videoblogs (v-blogs) (o2m, m2m Group blogs (m2m) Social networking sites(e.g., friendship services like Facebook and MySpace) (o2o, o2m, m2m) Media sharing sites (e.g., Flickr and YouTube (o2o, o2m, m2m) Mobile telecommunication (e.g., SMS (o2o, o2m) Online rating, evaluation, and recommendation systems (e.g., eBay and Amazon) (o2m, m2m)
Cooperation (Web 3.0./The Social Web)	Virtual worlds (e.g., Second Life) (m2m) MMOGs (massively multiplayer online games) or MMORPGs (massively multiplayer online roleplaying games) (o2o, o2m, m2m) Synchronous groupware or Google Docs and Spreadsheets (collaborative real-time shared editing, shared application programmes (o2o, m2m)	Wikis (m2m) Shared workspace systems (m2m) Asynchronous groupware (m2m) Knowledge communities (e.g., Wikipedia) (m2m)

Cha, Mislove, Adams and Gummadi (2008) call social cascades. The latter refer to the fact that, within SNSs and MSSs, information is virally disseminated through cascading social links existing within given social networks. For example, as Cha et al., (2008) contend, in respect of Facebook, MySpace, Flickr and YouTube, content in the form of messages, ideas, products, artefacts, and resources spreads across social connections like a virus. Here one participant creates or discovers new content and shares it with friends, who in turn share it with their own friends, and so on. This viral spreading of content based on cascading social links of participants is regarded as social cascading. Social cascades have densification effects. So, as more users create and share content, personal profiles or favourite information in SNSs and MSSs, the more their physics of participation, collaboration, sharing and connections gets enhanced and the more their participatory and collaborative discourses come into play. All this embodies digital discourse transformation: NDDDs give rise to and transform into participatory and collaborative discourses.

As with blogs, SNSs and MSSs consist of and leverage multimodal communication. For instance, both technologies allow users to integrate text (e.g., comments), photos, and videos with remixed content and with other graphics and images. The case in point is MySpace which enables users to integrate friends, profiles, photos, videos with email-like messages, instant messages, bulletin boards, blogs and comments (Vandersluis, 2008). This engenders not only multimodal discourses but hybrid discourses as well. Here, too, we have a case of digital discourse transformation: NDDDs embodying multimodal and hybrid discourses.

Emerging New Literacies

SPTs have not only spawned new genres and changing discourses; they have given rise to emerging new literacies as well. The latter are *new* and *evolving* literacies within the context of SPTs. They are situational, relational and dynamic (Ito et al., 2008) digital socialisation practices that are temporally new within the confines of the SPTs in which they are used. Following Leu, Kinzer, Coiro & Cammack (2004) and Coiro, Knobel, Lankshear & Leu (2008), these emerging new literacies are deictic. That is, their forms and functions change correspondingly as new information and communication technologies and the Web evolve and as users create new affordances for them. These emerging new literacies comprise, among others, multiple new literacies. Subsumed under the latter are digital literacies, multimodal literacies and participatory literacies.

Multiple New Literacies (MNLs)

In this chapter, the epistemology of *multiple new literacies* (*MNLs*) is used in its widest application to capture all its related complexities. It refers to multiple forms of new and emerging literacies that are employed by SPT users for communicating, socialising, and interacting, and for participating and collaborating in producing and sharing knowledge and content, and in remixing the latter. Classic instances of SPTs that help promote MNLs are blogs, microblogs (e.g., Twitter), IMs, SNSs (e.g., Facebook and MySpace), MSSs (e.g., Flickr and YouTube), virtual worlds (e.g., Second Life), MMOGs (e.g., Lineage and World of Warcraft), and VoIP (e.g., Skype). Additionally, the notion of MNLs invokes multiliteracies. Multiliteracies are a set of open-ended and versatile multiple literacies needed for users to function in diverse digital contexts and virtual communities (Leu et al., 2004; Thorne & Reinhardt, 2008).

In the context of SPTs, MNLs encompass digital literacies. Digital literacies in this regard refer to a constellation of related literacies: computer literacy; information technology literacy; new social media literacy; Internet literacy; navigational literacy; and video and visual literacy. These literacies are rooted in multiple digital social practices that form part of what (Lankshear & Knobel, 2005) call *digisphere*. The latter is made up of digital technologies, digital devices (e.g., MP3 players, iPods, video cams and mobile phones) and digital media in the same way as blogosphere comprises blogs. Examples of SPTs incorporating and leveraging digital literacies are blogs, wikis, SNSs (e.g., Facebook and MySpace), MSSs (e.g., Flickr and YouTube), virtual worlds (e.g., Second Life), and MMOGs (e.g., Lineage and World of Warcraft).

Moreover, MNLs embody multimodal literacies. The latter relate to literacies represented in multimodal media forms. In the case of SPTs, this entails integrating a wide array of digital symbols and multiple media formats such as animated symbols, icons, audio clips, podcasts, video clips, interactive graphics, virtual reality environments, and so on. In actual fact, this also involves SPT users leveraging different semiotic modalities (see Alvermann, 2008; Leu et al., 2004) so as to communicate meanings and messages or to collectively produce and share information or content in diverse digital media formats. Inherently, multimodal literacies require users to deploy either multiple tools offered by different SPTs or multiple tools embedded within each SPT. The best results accrue to those users who are able to make the most of the convergent offerings provided by individual and collective SPTs (see Leu et al., 2004). For instance, the more adept the user is in leveraging the multimodal literacies associated with blogs, Twitter, Facebook, MySpace, Flickr, YouTube, Second Life, and World of Warcraft at any given moment, the better their semiotic modality output will be.

Finally, MNLs incorporate participatory literacies. Participatory literacies are informed by two notions: the culture of participation and the age of participation characterising SPTs. The age of participation - which also encompasses aspects of the *conceptual age* (Rockenbach & Fabian, 2008) - as used here encapsulates the participative intelligence leveraged by both STPs and users through social practices such as collaboration, sharing and contributions in relation to knowledge, information and content. This participative intelligence requires a mastery of participatory literacies on the part of users for them to better exploit SPTs. That is, for users to be literate in participating in SPTs such as blogs, microblogs (e.g., Twitter), IMs, SNSs (e.g., Facebook and MySpace), MSSs (e.g., Flickr and YouTube), virtual worlds (e.g., Second Life), and MMOGs (e.g., Lineage and World of Warcraft), they need to understand and master the nuances of forming relationships, producing, remixing and sharing information and content, and collaborating among themselves. Above all, they have to leverage one another's social and relational capital – one another's digital relationship economics. In addition, they need to master traits identified by Crook et al. (2008) and McLester (2008) such as nonlinearity, multitasking, parallel processing and simultaneous attention.

ONLINE SOCIALISED LEARNING

The concept of online socialised learning (OSL) is used here to refer to a learning leveraged through SPTs which allows users to learn while they are socialising. It is a digital lifestyle media based learning converging everyday activities and embodying relationship formation, chatting, playing, gaming and entertainment. It is powered by peer-based, friendship-driven and interest-oriented social networking, thereby leveraging users' social, relational and (sub)cultural capital. This helps users develop and nurture what Intel (2005) refers to as *egonomy* - which is users' fascination with themselves and with one another.

Additionally, OSL is characterised by a participatory culture. The latter enables users to engage in discussion/communication, collaboration, exploration, discovery, production, creation, remixing/repurposing and sharing. Collaboration, in this context in particular, involves both *collaboratories* and *referratories* (Delich, Kelly & McIntosh, 2008). It is distinguishable from participation through the types of SPTs it leverages. Most significantly, OSL harnesses telepresence and sociability. In this instance, it promotes the following approaches: group learning; project-based learning; problem-based learning; vicarious learning; self-directed learning; distributed learning; and recreational learning. Moreover, it embodies the genres, discourses and literacies delineated earlier. At the same time, it serves to hone such skills as social skills, interpersonal skills, communication skills, participatory skills, engagement skills, and creative skills, among others.

CHANGING LEARNERS

The advent of SPTs has resulted in new and changing types of 21st century learners. These learners are referred to using various labels. Salient among these are *Digital Natives*, *Generation Google* (Huijser, 2008), *Millennials* or *New Millennial Learners* (Pedró, 2006). Most of these learners are self-directed learners using digital technologies on their own to serve their own individual needs. They do so either in or outside the school (see Jukes & Dosaj, 2006; Luckin et al., 2008). This portion of the chapter briefly outlines features of these New Millennial Learners (NMLs) in relation to multitasking, polycontextual and learning approaches. At the same time, it also highlights a few caveats in this regard.

NMLs have a tendency to use multiple SPTs simultaneously. They are accustomed to moving seamlessly between blogs, podcasts, IMs, SNSs (e.g., Facebook and MySpace), MSSs (e.g., Flickr and YouTube), virtual worlds (e.g., Second Life), and MMOGs (e.g., Lineage and World of Warcraft) on the one hand, and mobile phones, iPods, video games and television (TV) on the other hand. So, they are, concurrently, able to: blog; listen to podcasts; IM and text friends; make new contacts; create their own pictures and videos; produce and remix content; teleport; talk over mobile phones; listen to music; play games in immersive 3-D worlds; and watch TV (Jukes & Dosaj, 2006). By so doing, they get immersed in these technologies in which digital becomes their second nature or as Jukes and Dosaj (2006) put it, in which digital becomes their first language - digital as a first language. In all this lies the practice of multitasking which is regarded as one of the characteristics of NMLs (Jukes & Dosaj, 2006; McLester, 2008). In addition to multitasking, NMLs are perceived to be polyfocal. This implies that they can focus on several activities at once and do display a preference for simultaneous attention over successive attention (see Crook et al., 2008).

Other characteristics attributed to NMLs are:

- Parallel processing as opposed to singular or serial processing
- Receiving information quickly from multiple multimedia sources
- Searching and manipulating information or content (e.g., remixing or repurposing content)
- Random access to nonlinear, hyperlinked, interactive multimedia information or content in contrast to linearly and sequentially packaged information or content
- Preference for visual data and images
- Moving seamlessly between real and virtual spaces
- Just-in-time learning rather than just-in-case learning
- Instant access to friends, services, and content and to responses to queries
- Preference for expressiveness
- Juggling socialising, playing/gaming, entertainment, working and learning
- Short attention span or divided attention (see Brady, 2008; Crook et al., 2008; Jukes & Dosaj, 2006)
- Do-it-yourselfers (risk-takers who do most of the things for themselves)

Thus, in addition to the learning approaches identified above, NMLs tend to have an inclination for the following learning approaches: networked learning; connectivist learning; peer assisted learning; collaborative learning; case based learning; and experiential and action learning. All this is about polycontextual learning: leveraging different contexts for learning purposes.

However, despite what has been said about NMLs thus far, certain caveats need to be taken into account. For example, multitasking is no guarantee for an in-depth exploration and a competent manipulation of knowledge or information. In fact, at best, it may amount to a flippant engagement with material, thereby culminating in superficial learning. At worst it, it is likely to distract NMLs' attention, resulting in little or no learning taking place. Moreover, there are learning situations that are better served by successive attention and serial processing (e.g., trying to establish logical links between items). However, there are those that are better served by simultaneous attention and parallel processing (e.g., searching for and comparing information or content, or synthesing input simultaneously from several sources).

Furthermore, the learning approaches identified above are not inherently peculiar to NMLs - they can be used by any other types of learners wishing to leverage them. Lastly, not all learning has to be integrated into socialisation, play, work or entertainment.

FUTURE TRENDS

Four key future trends are likely to characterise social participation technologies (SPTs) with regard to genres, discourses, literacies and online socialised learning (OSL). Firstly, as the Web keeps evolving, so will also SPTs together with the needs they serve for users. Correspondingly, genres, discourses and literacies will continue evolving and changing in keeping with new and emerging SPTs. All of these three variables will be highly deictic, situational and temporal in nature. That is, they will serve users' needs as determined by the future time at which they are used and by the use to which they are put within given SPTs. Secondly, the practice of participation and interaction (the age of participation and interaction) will be such that it permeates all aspects of SPTs. Here every instance of the usage of these technologies (e.g., blogging, Twittering, IMing, texting, *Facebooking*, remixing, teleporting, gaming, etc) will be seen as both participating and interacting.

Thirdly, OSL will not only be digitally participatory and interactive, but will also be network- and lifestyle-driven. In this way, it will be based on networks of peers, friendships and interests with lifestyle learning being one of its major determinants. Accordingly, there will be an increasing convergence of everyday life with learning, resulting in the line between the two being significantly blurred. Fourthly and lastly, learners and forms of learning will continue changing in response to the changing digital environments brought about by new SPTs.

CONCLUSION

This chapter has outlined the evolution of computer-mediated communication (CMC) technologies into social participation technologies (SPTs). In respect of the latter, it has variably focused on blogs, social networking sites (e.g., Facebook and MySpace), media sharing sites (e.g., Flickr and YouTube), virtual worlds (e.g., Second Life), massively multiplayer online games (e.g., Lineage and World of Warcraft), and mashups. On this score, this chapter has argued that most CMC technologies have evolved into SPTs either as convergent applications or as stand-alone complementary applications. In addition, it has made the contention that SPTs serve as instances of inscription and attention technologies. In this regard, SPTs also tend to serve as instances of digital lifestyle technologies leveraging their users' attention economy.

Most importantly, the chapter has delineated new genres, changing discourses, emerging new literacies, online socialised learning (OSL) and changing learners associated with SPTs. In this context, one of the aspects it has highlighted about digital genres is their hydridism, reproducibility and adaptability. In relation to discourses it has, among other things, identified the discourse of expressivity and networked and distributed digital discourses (NDDDs) as part of SPTs. Above all, concerning emerging new literacies, it has foregrounded multiple new literacies (MNLs). Furthermore, the chapter has established that OSL leverages digital lifestyle, friendships, interests and other aspects of relational capital. Finally, it has outlined the characteristics of new millennial learners (NMLs) and briefly pinpointed a few caveats that need to be taken into account regarding NMLs.

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KEY TERMS AND DEFINITIONS

Collaboratories: These are virtual forums enabling groups of users to share interests or compete for resources.

Media Sharing Sites (MSSs): These are websites hosting and allowing media or resources such as digital pictures and videos clips to be shared by users. Typical examples are Flickr and YouTube.

Micro-Blogging: Also known as mini-blogging micro-blogging is a collaborative type of social participation blogging allowing participants to use about 140 characters to communicate with each other. Classic examples of micro-blogging services are Twitter, Jaiku and Tumblr.

Multi-Tasking: The act of juggling multiple tasks at once as opposed to linearly working from one task to the next.

Referratories: Referratories link to other sites for content and information unlike repositories which contain the actual content.

Social Networking Site (SNSs): These are websites hosting and offering virtual social networks and enabling users to form affinities and relationships with peers based on common interests hobbies, careers, etc. Classic example are Facebook, MySpace and LinkedIn.

Telepresence: Supported by immersive 3-D virtual environments, telepresence enables participants to have real-time experiences almost similar to physical experiences. Participants can don electronic devices, wear special clothing, or enter virtual worlds containing electronic sensors.

Twitter: This is an online application which is part blog part SNS and part mobile phone/IM tool allowing users to make about 140 characters for each posting.

Chapter 41
An Appraisal of a Computer-Based Continuing Professional Development (CPD) Course for Nigerian English Teachers and Teacher-Trainers

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ABSTRACT

This chapter is a presentation of a continuing professional development (CPD) programme for English teachers and teacher-trainers in Nigeria using one of the states in Nigeria as a case study. It evaluates the effectiveness of the computer assisted programme, which was part sponsored by the British Council, and concludes that it did not achieve its desired objectives due to a number of reasons. For instance, it was observed that the course content was too loaded for a part-time course. Other reasons for the failure of the programme include absence of internet connectivity, low level of computer literacy, poor power supply and lack of commitment on the parts of both the trainees and the institutions they worked for. The chapter ends with suggestions on how the anomalies observed could be corrected so that computer resources could be used more effectively in the design and implementation of continuing professional development (CPD) programmes for English Language teachers and teacher-trainers in developing countries.

INTRODUCTION

Continuing Professional Development (CPD) is a term used worldwide to describe many in-service training programmes undertaken by professionals in several fields of human endeavour. It is often seen as an avenue to regularly improve and broaden knowledge and skills, and develop the qualities that are necessary for the execution of their professional duties. It is also about updating people and improving their confidence and competence in the work place. CPD courses, which in the past took the form of workshops, seminars and short courses, now include computer-assisted

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online courses for obvious reasons (Brown & MacIntyre, 1993).

Professional development could take many forms and shapes, which include single or multi-faceted programmes such as short courses & workshops offered after school, weekends and during holidays, is believed to help remove teachers' anxiety toward computers and enhance greater networking capacities using online technology. The current trend in educational reforms has led to the development of online professional development programs to foster teachers' application of research-based strategies to improve their skills and capabilities.

The British Council in conjunction with the National Teacher Institute, Kaduna, Nigeria organized a computer-based distance learning program which was captioned Continuing Professional Development (CPD) Programme in Nigeria. The course was developed especially for Nigerian English teachers and teacher-trainers as a form of educational aid to the country. The course was expected to help improve the quality of English teacher-training which would ultimately rub off on the quality of English language teaching in the country.

Aside from strengthening cultural ties, understanding and trust between Britain and its erstwhile colonies, the British Council plays an important role in the sustenance of the English language as one of the great international languages of the time. This it does through rendering assistance in English language teaching, e-learning schemes such as 'LearnEnglish Podcast', exposing foreigners to job vacancies and training opportunities for Teachers of English as a Foreign Language (TEFL). It is pertinent to observe at this juncture that English is used as a second language in Nigeria. Being the country's official language, the medium of secondary and tertiary education and the language of conducting business in Nigeria is English. The above and many more reasons make the language a vital tool of communication that must be mastered by all who wish to make headway both in Nigeria and the emerging global village.

The aim of this chapter is to present the implementation of the CPD programme in Nigeria, evaluate its effectiveness and make useful suggestions on the use of Computer-based continuing professional development courses in developing countries like Nigeria.

Computer-Based CPD English Teachers and Teacher-Trainers in Developing Countries

Computer-based continuing professional development has been made possible through the use of computers and the Internet for an interactive relationship between English teachers and their tutors. The tutor is reduced to a guide or a mediator between the computer and trainees throughout the learning process (Barr & Gillespie, 2003; Fotos & Browne, 2005). Hoven (1999:150) went as far as advocating a learner-centred CALL syllabus. With such a scheme, the learner is placed in control of his/her own language learning. She elaborates further that the learner needs to be in control of the 'content, mode, order, pace and level of self-direction of the package' (Hoven, ibid). Since technology has greatly enhanced the ease of language learning within a shorter space of time in comfort and style (Wishart, 2008), the British Council's intervention in updating the skills of teacher-trainers through computer-based CPD was a welcome development. CPD is not about language teaching per se, but it is also about exposing Nigerian English teachers and teacher-trainers to current methodologies and approaches to teaching English as a Second Language to Nigerian school children.

According to Dede (2006), increasing attention is being given to the role of new information and communication technologies in continuing professional development. Areas of interest include: the use of multimedia to provide structured learning experiences around video-based case studies of learning environments, the use of productivity tools to support teachers planning and engaging in their own or collective projects, the use of telecommunications to provide channels of communication for networking and mentoring, facilitation and support, and the use of online professional development courses and online curriculum projects.

The Australian Curriculum Studies Association (2001) observed in a report that governments, systems and teacher education institutions and professional associations need to work collaboratively to develop coherent agendas around the integration of ICT in schooling. This was expected to lead to the development of professional development strategies for the effective use of ICT in the country's education.

Dede (2006) presents ten exemplary online professional development models with substantial records of success. Among others, he discusses innovations and challenges in designing, implementing, and sustaining online professional development programs for teachers. The models were analysed using empirical and design-based research. He demonstrates how ICT can be used to disseminate rich education resources and engender capacity-building in the classroom. The models focus on targeting teachers at specific points in the learning process and helping them go beyond learning new skills and methods to transforming their professional development.

Sparks and Loucks-Horsley (1989) suggest five professional development models. They are individually guided development, which enables the teacher to design his or her learning activities; observation and assessment in which a colleague observes a teacher's classroom performance and provides feedback; involvement in a development or improvement process, which entails developing curricula, designing programmes, or changing classroom practice. The others are training and inquiry, which are geared at developing the teacher's ability to take reflective actions. Kirkpatrick (1998) pointed to the crucial role of teachers for the efficacy of technology in education in computer-assisted instruction (CAI) and computer-managed instruction (CMI).

Gruba (2004:628) distinguishes between communicative and integrative CALL (Computer Assisted Language Learning). He observes that the key distinction between the two is that in communicative CALL, learner choice and self-management of activity are driven by task based approaches to syllabus design, whereas in integrative CALL, learning occurs through "accidents" generated by projects (see Ehman, et al, 2005). He tended to favour this latter approach because, according to him, 'it seeks to make full use of networked computers as a means of engaging learners in meaningful, large scale collaborative activities' (Gruba, ibid).

Like Gruba, many CALL practitioners subscribe to the integrative approach because of its apparent educational advantages. For instance, Pennington (1996) observes that learners gain more self-confidence, take more risks and are more spontaneous when they use the computer on their own for the purpose of language learning. Kramsch and Anderson (1999: 31) surmise that the use of computers brings the target language and culture as close and as authentically as possible to the students in the classroom. Another important benefit of this approach is the fact that it can be utilised for material production with the supervision of an instructor (Davies, 1998). It is particularly useful for helping students with special needs, through the use of screen readers, Braille devices and several other assistive technologies. Cuban (2001) observes that the use of computers for language learning shapes the perception of the program and attracts students who are eager to be seen using the latest technology.

Brown and MacIntyre (1993:13) criticised in-service courses as being based on a 'deficit model' of teaching. In the same vein, many in-service language teacher-training programmes in Nigeria have been found to be outdated, repetitive or irrelevant. This is because many of such courses are motivated by political purposes and financial benefits than the specific developmental needs of the professional teacher and teacher-trainer. Many in-service training programmes for teachers of English in Nigeria do not achieve the desired effect for many reasons which include the following:

- Student-teacher ratio in many Nigerian teacher-training institutions is so high that such institutions cannot afford to release their English language instructors for in-service training.
- Insufficiency of funds frequently constitutes a serious challenge to many teacher training institutions. Many teacher training institutions cannot afford to send their instructors on regular in-service training in spite of its obvious benefits because of poor funding.
- Incessant power outage seriously affects the use of computers for teaching and learning both at home and at work. Many equipment which include computers are frequently damaged by power surges and poor handling.
- Although the cost of computers has gone down drastically in Nigeria in the past few years, many Nigerian teachers and teacher-trainers still view it as a luxury that they can ill-afford.
- Many Nigerian teachers and teacher-trainers are not computer literate.

From the above, it can be seen that theory and reality turn out to be parallel lines that never meet. The observations made above is corroborated by Yunus' (2007) conclusions in his evaluation of the use of ICT for teaching English as a Second language in Malaysia. It can be deduced from these that they are generally true of Third World situations.

The Implementation of CPD in Nigeria

CPD is a recent innovation in Language Teacher Education (LTE) in Nigeria. It is a computer-assisted in-service course designed especially for English language teachers and teacher-trainers to update and enable them to catch up with innovative ideas and methodologies in language teaching. The programme was designed to run in all the thirty-six states in the Nigerian federation. A week long workshop took place in Kaduna, Kaduna State between 14 and 19 August 2006. Tutors nominated from all over the country were assembled for the purpose of familiarizing them with the rudiments of the course. Most of the tutors were university graduates who were engaged as English lecturers in universities and colleges of education where teachers are trained to teach English in Nigerian primary and secondary schools. The tutors were expected to meet guide the trainees, collect their assignments and diaries and meet with them for an hour or two every month. During these meetings, captioned 'study-group' and 'tutor-group' meetings, he or she was expected to engage the trainees in interactive discussion of the current module and help them, as much as possible, with the technological and online challenges they might have encountered in the course of the programme.

The country was divided into three zones for administrative convenience. They were Northern, Southwestern and Southeastern zones. Osun State falls under the southwestern zone. An inaugural meeting, which had been postponed on two previous occasions, took place at a private polytechnic in Ibadan, the Oyo State capital late in October 2006. Here, the British Council representative took tutors and trainees through the procedures for the programme and guided them on how to use the CDs to be supplied for the interactive learning. At the end of the day, each state tutor was given

10 CDs for distribution to each of the ten trainees in their states.

The CD-Rom contains the complete instructional materials for the course and step-by-step guidelines on how trainees can obtain optimum benefit from the course. Trainees received their copies of the CD on the first day of contact with their tutors. The CD-Rom is in five blocks, with each block hosting five modules. All the modules contain notes, tasks and exercises, and some of them have video clips that run into several minutes. Each module contains an average of twenty hours of individual study tasks. It also contains guidelines for an hour of study group meeting during the second half and another hour of tutor group meeting to wrap up the module. The average time schedule for a module is twenty working days.

Each module opens with an overview in which the objectives of the module are clearly spelt out. This is followed by the module plan, which guides the trainee on the duration of the module. Key words and technical terms are in dark prints and when such words are clicked upon, explanations about their meanings or applications are supplied automatically. There are also hyperlinks that connect direct to the internet. There are Word Document icons at various points which opens a page that contains appropriate exercises for the task at hand. The trainee is expected to oblige by answering the questions asked or perform the required tasks. The trainee's response can be sent as attachment to an e-mail to the tutor for grading and feedback.

A weekly planner could be downloaded from the CD-Rom to serve the purpose of filling in activities for the week. The CD also contains a course diary which must be filled in and sent as attachment to the course tutor at the end of the week. Each module is copiously illustrated with stories, articles and visual clues that make the programme interesting and easy to follow. The study-group meeting provides an opportunity for further discussion on issues arising from the trainee's individual study. It also affords an opportunity for the course participants to know themselves and interact with one another. It is a forum for tackling problems encountered with the individual tasks; hence participants can rub minds and share ideas on new methods and information encountered in the course of the programme.

The tutor-group meeting usually comes at the tail end of a module. It is not expected to last longer than one hour. It is expected to be an interactive session between the tutor and the trainees. The tutor takes attendance, checks through the diaries and other tasks submitted by the trainees. Problems and difficulties are resolved and clarifications are made on issues that are brought up by the trainees. The tutor group meeting enables the tutor to record the progress and performance of each individual participant. For instance in Module 1, participants are expected to come up with original metaphors that summarise their lives' story; their professional self development plans in Module 7; and record their experiences in mentoring in Module 14.

The following were some of the problems encountered in the implementation of the course:

a. Course Content. While it was desirable that trainees be exposed to as much materials and methodologies as possible to enhance their professionalism, the time allotted to the course, the extensive course content and trainee expectations appeared too much for a part-time course. Consequently, trainees felt overburdened and their general attitude to the course was lackadaisical.
b. Computer Literacy. The first setback was the realisation that most of the trainees were not computer literate. Of the ten Osun State trainees, only four knew how to use a computer and only three had free access to personal computers. Each computer literate participant was asked to assist one or two trainees to come to grips with the rudiments of the computer. This achieved some positive effects, but it slowed down the interactive

process as computer literacy was assumed by the course designers. Consequently, trainees without access to computers lagged behind in their submissions.

c. Time. The time frame for completing a module was about one month. At least 50% of the participants lagged behind. The rate of absenteeism at study-group and tutor-group meetings was very high. Attendance rate fell below 50%. The most common excuse given by the trainees was insufficiency of time. They were either too busy with the demands of their regular jobs or their family commitments made it impossible for them to squeeze out enough time to follow the time schedule of the course diligently. The table below illustrates the attendance and submission of assignments:

d. Internet Connectivity. In addition to the notes supplied in the CDs, trainees were often expected to avail themselves of hyperlinks by clicking on words and notions for internet connection where further details are required. The last column in the table above shows that the internet was hardly ever used by the trainees. This is because the facility was considered a luxury in many parts of Nigeria, including Osun State. Only a single candidate sent her diaries by e-mail a couple of times. All the other trainees made all their submissions in person.

e. Personal Commitment. In spite of the fact that the course entailed daily interactive sessions with the CD, most of the students did not engage in the interactive sessions more than once or twice a week. When some trainees wondered aloud about the material and professional benefits to be derived from the programme, they were encouraged with the assurance that the course would serve as a condition for participation in well-funded seminars and workshops in the future. The level of personal commitment was relatively low and this could be seen from the below average attendance and submission of written assignments.

f. Institutional Commitment. The design of the course made it hard for the trainees to obtain study leave. Some of them managed to get day releases on study group and tutor group meeting days. The course content was such that the trainees would have benefitted more from the programme if they had been given up to two days-off per week, while the course lasted. Participants did not enjoy any form of financial support, neither were they allowed to make transport claims for the days they travelled out of town for the fortnightly meetings. The near absence of financial and other substantial support by the institutions where the trainees worked was a great hindrance to the overall success of the programme.

g. Unstable Power Supply. The state of power supply in Nigeria was generally unstable. It is quite common for homes and offices to be without power supply from the national grid for several days and sometimes weeks. Activities and interactions between the tutor and the trainees were severely curtailed by this anomaly.

h. Payment of Tuition. After students had started the course, a directive came that each trainee be made to pay twenty thousand naira tuition (about one hundred and fifty dollars). Although most of the trainees expressed strong reservations about the unexpected introduction of course fees, they paid grudgingly in the end.

From the above observations, it can be safely deduced that the CPD programme could not achieve its desired objectives in Osun State, Nigeria because of the myriad of problems encountered in the design and implementation of the programme.

Table 1. Record of attendance and submissions at tutor-group meetings

	ATTENDANCE		SUBMISSIONS		INTERNET
MODULE	Study Group Meeting	Tutor Group Meeting	Diaries	Task Performance	E-mail
1	70%	60%	40%	30%	10%
2	50%	60%	40%	40%	0%
3	60%	40%	50%	20%	0%
4	50%	50%	30%	20%	10%
5	30%	50%	30%	30%	0%
6	60%	40%	40%	40%	0%
7	60%	40%	50%	20%	0%
8	40%	50%	30%	20%	10%
9	50%	50%	20%	10%	0%
10	50%	40%	30%	40%	0%
11	40%	50%	40%	20%	0%
12	50%	40%	50%	20%	10%
13	40%	60%	30%	10%	0%
14	60%	60%	40%	30%	20%
AVERAGE TOTAL	**50.7%**	**49.2%**	**37.9%**	**25%**	**4.28%**

Solutions and Recommendations

The solutions to the problems identified above are not farfetched. There was ample evidence that Nigerian academics were involved in the design of the course. However, it was equally apparent that the course was not designed to be a part-time course. The brief given to course designers ought to be clear and if the implementation is altered for any reason, then the programme ought to be amended to suit the new circumstances. Teacher trainers should be made to play an active part in the design and evaluation of such courses in the future so that it would not be overloaded with irrelevant materials. If an in-service training is designed to last up to ten months, then it behoves the organisers to award a certificate or diploma that would be commensurate with the effort put in by the trainees. Likewise, if the programme is accompanied by some form of recognition or material reward, trainees would certainly take it more seriously.

Nigerian teachers and teacher trainers could be assisted to overcome anxieties fostered by extensive computer usage through more intensive computer literacy programmes and availability of computers in classrooms and offices. The internet service should be made a standard requirement in all Nigerian teacher training institutions. Teachers and teacher trainers can be encouraged to own their own computers through incentives such as paying in instalments. Schools should also be equipped with stand-by generating sets to make up for periods of power outages. Students' interest in interaction through computers should be encouraged and sustained through creative group and individual learning. Gruba (2004: 638) advocates the acquisition of electronic literacy skills, including multimedia texts interpretation, basic materials design and production skills.

CONCLUSION

Although many educators see the use of computers as an essential tool for language learning and its use is catching on fast in Nigeria, the percentage of learners who have unhindered access to computers and the internet, in particular, is still relatively low in Nigeria. Notwithstanding the challenge of using the computer for language learning in Nigeria, the role of electronic gadgets and the internet in the country's education will continue to increase. This is clearly an important medium of acquiring international languages such as German, French, Russian, Chinese and other important world languages. The ratio of computers to students will continue to expand until most higher institution students are able to use computers for everyday interaction and learning.

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KEY TERMS AND DEFINITIONS

Computer-Assisted Instruction (CAI): An interactive instructional technique whereby a computer is used to present the instructional material and monitor the learning that takes place. CAI uses a combination of text, graphics, sound and video in enhancing the learning process. The computer has many purposes in the classroom, and it can be utilized to help a student in all areas of the curriculum. CAI programmes use tutorials, drill and practice, simulation, and problem solving approaches to present topics and test the language learners understanding.

Computer-Managed Instruction (CMI): Refers to use of computers and software to manage the instructional process. Functions of CMI can include a management administration system designed to track students' performance over a period of time, provide information concerning performance trends, record individual and group performance data, schedule training, and provide support for other training management functions.

Computer Literacy: The knowledge and ability to use computers efficiently. Computer literacy can also refer to the comfort level someone has with using computer programs and other applications that are associated with computers. Another valuable component of computer literacy is knowing how computers work and operate.

Continuing Professional Development (CPD): An in-service training programme designed to improve and broaden knowledge and update the skills of professionals in many modern day disciplines. CPD programmes, which could be organised for weekends and during holidays, are believed to help remove teachers' anxiety toward computers and enhance greater networking capacities using online technology. The current trend in educational reforms has led to the development of online professional development programs to foster teachers' application of research-based strategies to improve their skills and capabilities.

Developing Countries: A term that is often used to refer to most countries in Africa and Asia that are still grappling with the challenges of modernisation. Such countries often exhibit low standards of democratic government, civil service, industrialisation and systems of law and order. Developing countries often score low on statistical indexes such as income per capita, gross domestic product (GDP), life expectancy and literacy rate.

English as a Second Language (ESL): Refers to English language learning in countries where English is the main and/or official language, and the student's own native language (first language) is not English. ESL is used in most countries colonised by Great Britain in Asia and Africa. Nigeria is one of such countries. The variety of English spoken and written in these countries retain the structural features of the English used in English speaking countries such as the US and the UK, they have unique phonological and lexical features that distinguish them as serious varieties of English.

Language Teacher Education (LTE): Concerned with the professional development of language teachers. It is concerned with the social, political, and cultural factors that affect the teaching of specific languages. Its coverage include methodologies, curriculum development, syllabus design, material development and evaluation and testing, among others.

Chapter 42
Engagement in the Second Life Virtual World with Students

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ABSTRACT

This chapter focuses on participant engagement in an immersive virtual environment among a group of Singaporean teenagers in the context of the subject, General Paper, aimed at developing students' critical thinking and argumentation skills. Investigation based on the functional linguistic resources of 'Engagement' (Martin & White, 2005) examined 17-18 year old pre-tertiary students' engagement with each other in the Second Life virtual world. Of specific interest in this study were the linguistic resources and strategies used by students as they thought, 'spoke' and acted on issues from the perspectives of simulated personas. The exchange of perspectives revolved around the theme of euthanasia. Findings highlighted how students engaged with a range of perspectives on issues raised, and the level of assertiveness and moderation in their claims proposed. The examination also showed the extent of participants' dialogically expansive or contractive stance. The pedagogical implications of the findings are discussed.

INTRODUCTION

Technological advancement has led to powerful networked environments becoming increasingly employed in education. There is interest in the potential of three-dimensional (3D), multi-user virtual environments (MUVEs) for enhancing learning (Bailenson et al., 2008; Barab et al., 2005; Cooper, 2003; Ketelhut, 2007) through role playing and active engagement. MUVEs provide a dynamic platform for multidisciplinary learning and collaborative meaning-making (Barab et al., 2005; Schroeder, 2002). They are recognized to be advantageous for language learning through developing greater interactant awareness, and stimulating creativity and imagination (Peterson, 2005; Vance, 2006).

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This chapter draws on a larger research study (Ho, Rappa & Chee, 2009) of the Second Life (SL) immersive virtual environment for enactive role play in the context of the General Paper (GP), a subject offered at the pre-tertiary level (Grade 12) in Singapore which stresses argumentation and critical thinking. Enactive role play (Bruner, 1968, 1966; Varela, Thompson & Rosch,1991) is an embodied approach to learning where thinking is not an abstract, cognitive activity but involves doing something concrete in the process of 'sense-making'. Immersing participants in carefully-designed scenarios provides the virtual 'experience' which generates the stimulus to provoke a response. The interest in the study is in providing students a creative opportunity to develop argumentation skills through enactive role play where students construct arguments, and exchange viewpoints and perspectives in the process of virtual dialoguing with each other. These are undoubtedly critical skills which are required of students embarking on education at a tertiary level (Coffin, Painter & Hewings, 2006).

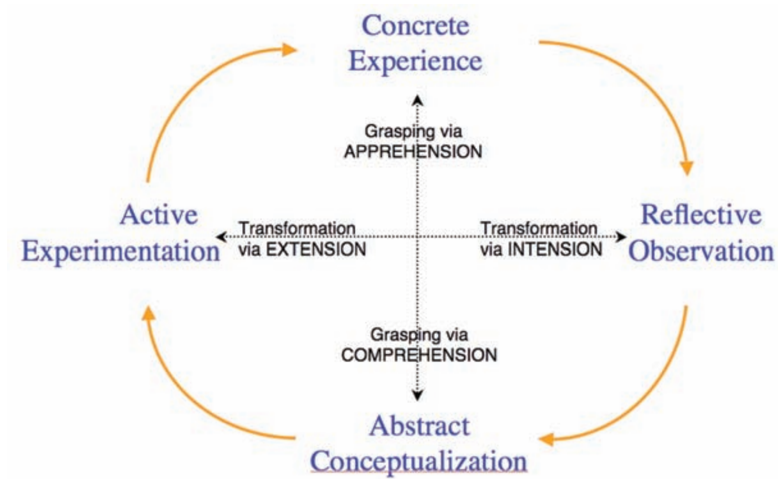
Unpacking the dynamics of discourse behaviour and interaction in digital settings is a major theme in this research handbook. Keeping this interest in view, this chapter presents research efforts related to examining how students within the SL virtual world engaged with various opinions and arguments presented in the virtual enactments. Drawing on functional linguistic theory (Halliday, 2004/1994; Martin,1992) facilitated a systematic analysis of the virtual interaction in terms of participants' roles and the discourse strategies and features adopted. The chapter examines the concepts of engagement and experiential learning which provide the theoretical thrust and shape the research focus of this study. A research review and background information on the study are provided. The method of analysis is described followed by analysis and discussion of findings. The chapter closes with pedagogical implications and summarizes the key issues raised.

ENGAGEMENT AND EXPERIENTIAL LEARNING

The approach to this investigation was informed by Bakhtin's (1981) notion of dialogism. Texts generated from participants' enactments, are 'dialogic', in that 'to speak or write is always to reveal the influence of, refer to, or to take up in some way, what has been said/written before, and simultaneously to anticipate the responses of actual, potential or imagined' respondents (Martin & White, 2005, p. 92). The SL setting where students enacted their roles provided 'a dialogic space in which a variety of voices, including the textual voice can participate' (Swain, 2007, p.170). This realized, in a concrete way, the Bakhtinian (1981) notion of 'dialogicity'. This 'verbal performance in print…inevitably orients itself with respect to previous performances in the same sphere' (Voloshinov,1995, p.139) in its response to, support of, challenge to and anticipation of views from other participants. A dialogic perspective of interaction emphasized how students aligned themselves with, against or were neutral with regard to other participants and their positions taken on issues.

The notion of 'Engagement' (Martin & White, 2005) focused on the linguistic resources for 'the authorial voice to position itself with respect to, and hence to "engage" with the other voices and alternative positions constructed as being in play in the current communicative context' (Martin & White, 2005,p. 94). Consistent with the rhetorical leaning was the emphasis on the resources of intersubjective positioning (Martin & White, 2005, p.95). Engagement dealt primarily with 'sourcing attitudes and the play of voices around opinions in discourse' (Martin and White, 2005,p. 35) with a focus on the exchange of participants' viewpoints, topics discussed and readers' expectations in the process of influencing participants as arguments develop. These are skills acknowledged as critical for argumentation which, in this chapter, is taken

Figure 1. Kolb's experiential learning cycle (1984, p.42)



to mean 'the ability to present well supported and reasoned arguments as well as to engage with alternative points of view' (Coffin, Painter & Hewings, 2006,p. 465).

The study aimed to provide students with a vicarious learning experience by engaging them through experiential learning (Kolb, 1984) via the SL virtual environment. The enactive role play dimension of the learning design was targeted at supporting the 'extensional' mode of learning through 'the active extension and grounding of ideas and experiences in the external world' (Kolb, 1984, p. 52). This 'concrete experience' (Kolb, 1984, p. 52) for students through their enacting roles of assigned characters paralleled a 'direct, practical experience' (Atherton, 2005: 4) in contrast to content 'knowledge about' something. The post-enactment reflection constituted Kolb's (1984, p.52) 'intensional' mode of conceptual thinking and internal reflective observation.

Experiential learning theory essentially presented knowledge construction as arising from 'the dialectic relationship between the two forms of knowing' (Kolb, 1984, p.101) - the more tangible and immediate 'apprehension' of happenings in the 'here-and-now' (Kolb, 1984, p.102) through 'active experimentation' as with the SL enactive role play, and 'the interpretive process' of comprehension (Kolb, 1984, p.103) via reflection. Figure 1 captures the dimensions of the experiential learning cycle:

RESEARCH FOCUS

This chapter attempts to systematically account for how evaluative positionings of participants are realized linguistically and to identify specific discourse strategies adopted against the heteroglossic (Bakhtin, 1981) backdrop of participants' voices. The method of analysis for participant virtual engagement is language focused, given the importance of the role of language, particularly for students' argumentation (Coffin, 2007; Laurinen & Marttunen, 2007) and the dialogic processes of reasoning (Clark et al., 2007; Morgan & Beaumont,2003; Reed, 2006). Attention is given to the specific linguistic resources and strategies as participants constructed and exchanged viewpoints within the interactive virtual environment.

RESEARCH REVIEW

Interest is rapidly growing in maximizing learning opportunities from immersive virtual environments. Whyville (http://www.whyville.com/) registers over 1.7 million users and twenty to twenty five thousand daily visitors (Whyville Educational Outreach, 1999-2007) in its virtual world for middle school children. Active Worlds (http://www.activeworlds.com/) draws eighty educational institutions worldwide, namely, colleges and universities (Activeworlds, Inc., 1997-2009). SL attracts both universities and corporations, and reports six million active avatars, of which fifty thousand are residing in Singapore (*The Straits Times,* 2008). These new platforms enhance experiential learning in engaging environments through real-life simulations. Students interact with each other, practise communication skills, and experiment with new ideas through a risk-free learning mode. Svensson (2008) has reiterated that digital and language learning can interconnect meaningfully when teachers and learners engage creatively and critically with the new media and digital technology. The potential value-add of MUVEs had been recognized by professional language communities as in the Languagelab (Languagelab.com Ilc, n.d.) teacher training experiment in SL, and through annual gatherings for practitioners and researchers in the field of language education on the SL EduNation islands (SLanguages, 2008). The research review offers insights revolving around the domains of collaboration, motivation and language/communication skills.

Collaboration

Networked environments have expanded collaborative learning and brought interactive communities together (Findley, 1988; Levy, 2002) for active communication and negotiation. Hobbs, Brown & Gordon's (2006) gaming study showed MUVEs facilitated more realistic problem solving, socialization and peer sharing. Dickey (2005) noted team building, peer group interaction and cooperation were fostered through Active Worlds in distance education. Campbell's (2003) intercultural task-based virtual learning with Japanese foreign English Language (EFL) learners yielded gains in collaboration and knowledge co-construction among others. Although the technological affordances in enhancing learner collaboration have been acknowledged in such studies, there is room for investigating specific participants' discourse behaviour as pursued in this volume. This would provide insights into how exactly participants engage with each other in virtual environments as opposed to traditional classroom learning.

Motivation

A key benefit of curriculum delivery through MUVEs is often cited as increased motivation. Molka-Danielsen et al's (2007) Norwegian SL study reinforced the social constructivist view of learning with gains for language learners not only in the cognitive but also affective (positive attitudinal) domains. Hislope's (2007) SL work with Spanish speakers saw higher motivation through greater conversational opportunities and cultural experiences compared to regular classroom environments. The Espresso for Schools in literacy intervention (Watts & Lloyd, 2000) indicated student enjoyment and motivation in learning through the video material, games and online tasks. However, whether MUVEs motivate all students remains unclear, given individual learner factors as in preference, self-discipline and concentration spans (Becta, 2007, p. 19).

Language and Communication Skills

Virtual environments have been tapped for developing oracy, communication and interaction, as well as academic and narrative writing skills. Koenraad's (2008) French EFL learners developed oral skills through detective, problem solving tasks in Active Worlds. In-world fluency practice in vocabulary and talking about self, ordering things and giving directions through problem solving, and interviewing avatars were cited as influential activities. Similarly, Peterson's (2005) Japanese EFL Active World study noted the use of communication features of avatars, and interactional and transactional strategies typical of CMC communication. Svensson's (2003) Virtual Wedding project offered a hypertext learning context with cross- disciplinary integration across language, literature and culture for academic writing. Engagement with visual and non-textual elements, and a rich set of links, multi-medial material and context were recommended to avoid composing process fragmentation. In gaming environments, Robertson and Good's (2006) interactive story development resulted in narratives developing from linear texts to those with purposeful authorial control in portraying ideas and reinforced the need for scaffolding for interactive dialogues. Earlier work on virtual role-play with *Ghostwriter* (Robertson & Oberlander, 2002) for educational drama encouraged improvisation on dialoguing, and developed students' expressive writing skills and audience awareness.

While it is observed that there are increasingly more studies on the impact of 3D virtual worlds on language education, these have largely focused on EFL contexts with generally positive gains in collaborative meaning-making, learner motivation and specific language and communication skills. There remains a need for further examination of the potential of such virtual learning environments, particularly in enhancing specific higher order critical thinking skills. Further, research into participants' discourse behaviour in immersive virtual learning environments based on linguistic methods of investigation is still somewhat sparse. This study focuses on examining a specific instructional context targeted at enhancing students' critical thinking and argumentation skills in real time, through adopting a fine-grained level of linguistic investigation into unpacking participants' discourse features and moves.

VIRTUAL LEARNING ENVIRONMENT

SL is an Internet-based, 3D virtual world developed by Linden Lab (Linden Research Inc., 2008) for enactive role play. 'Residents' interact with each other through customized avatars, and use high-level tools to construct objects or buildings in the virtual world. They can socialize and engage in activities. The researchers acquired a private island and paid a monthly maintenance fee for island access only for staff and students of the participating school. '*You*Topia' was the private island (Figure 2) developed within the SL teen grid. The name suggested to students that they could create their own perfect utopia or ideal society. The social state of the island depended on them. Whatever they aimed for rested in their decision making and ability to negotiate issues from their perspectives.

A context was designed for virtual enactment through scenarios (Ho, 2009) within YouTopia. Each scenario (Figure 3) carried a creative tension which was played out in the enactments. Students role played in groups of four or five participants through specific situations dealing with life and death issues where they learnt to think in role as particular individuals, reacted to issues raised, confronted problems posed, and made decisions in the process.

This chapter focuses on a seventy minute role play session (Appendix). The setting was a room at a hospice. The following were the roles played by students:

- Reverend Matthew Chia - a pastor,
- Shirley Wee and Richard Wee - the parents of Amy Wee (a young lady in a vegetative state following a collapse and permanent brain damage), and
- Dr Martin Loh - their daughter's doctor.

In this enactment, a conscience-stricken Dr Martin Loh revealed Kok Leong's (Amy's husband and legally-appointed guardian) plans to have

Figure 2. Screen shot of YouTopia island

Amy euthanized in another country. The Wees were angry over Kok Leong's decision to remove Amy's feeding tube. They planned to make a video to prove that Amy's actions were not arbitrary reflex actions but were indicative of signs of life. However, at the same time, they experienced the internal struggle in wanting to keep their daughter alive as against Kok Leong's desire to end their daughter's suffering. They arranged to meet both Rev Matthew Chia and Dr Martin Loh to obtain help. The discussion revolved around the sanctity of life and the place of death. The scenario enabled students to reflect on the different religious assumptions and values of participants, and to recognize the religious and moral or ethical issues associated with euthanasia.

The Instructional Setting and Subjects

The instructional setting for the study was the GP, a 'Knowledge Skills' subject at Higher 1 (H1) level, for broadening purposes for tertiary level studies (Ministry of Education, UCLES, 2005) in Singapore. It was a critical component of the pre-university curriculum. Students were expected to 'draw on their knowledge from across disciplines as well as to show an awareness of current, global, and significant local or national issues' (Ho, 2006, p.3) in argumentation. The GP performance indicated a candidate's level of preparedness for university study as it involved logical and intellectual argumentation skills required in higher education.

The subjects were forty five (twenty three Class A, twenty two Class B) final-year, pre-tertiary male and female students aged between seventeen to eighteen years old. They had average to low ability in the GP subject (mean of standardized test scores was 51%). The majority of the students were from a predominantly middle to low income background, residing in a typical public housing neighborhood in the northern region of Singapore.

METHOD OF ANALYSIS

Logged texts from participants' interactions were saved in text format using a SL feature and Open Source programme *Camstudio* was used for all screen activity recordings of the enactive role play sessions. Extracts from students' enactments cited were quoted verbatim. The first name of each

Figure 3 Screen shot of SL enactive role-play session

participant was the student's chosen name (names changed to preserve student identity) followed by the second name, 'YouTopia', which was common to all participants, hence, *Rachel YouTopia*. The following is a sample extract:

Rachel YouTopia: i want to videotape her and show that there are signs of life in her.

Aoi YouTopia: i do not agree with removing her feeding tube as it is her life buoy to bring her back ashore

Saranea YouTopia: I being a religious leader believe that what god brings to earth should be taken away by him alone

Saranea YouTopia: it is unfair of another man to take away what was created by god himself

The framework for analysis drew on the 'Appraisal' system (Martin & White, 2005) developed within Systemic Functional Linguistics (SFL) (Halliday, 2004/1994; Martin,1992). Within 'Appraisal', the system of 'Engagement' (Martin, 2000; White, 2002, 2003) provided the linguistic resources for classifying participant moves in the enactments. In this chapter, the semantic domains of 'Engagement' were adapted for capturing the salient features associated with participants' stance and the extent of attachment or detachment from participants' viewpoints. The Engagement resources comprised the following categories – Direct assertion (originally 'bare assertion' from Martin & White, 2005), Attribute, Entertain, Disclaim and Proclaim (Martin & White, 2005) with their attendant sub-categories which have been adapted where relevant (Figure 4). Each of these resources was realized by specific linguistic features. The researcher carried out the analysis manually in unpacking the functional Engagement categories and the lexicogrammatical forms. In the following sections, I present the findings with explanation and illustration of the various resources.

FINDINGS AND DISCUSSION

From the total number of forty five participants from the two participating classes, 1698 logged texts were recorded during students' virtual enactments in Second Life. Table 1 provides the breakdown of student contribution from the two classes with regard to the logged texts constructed.

Class A showed a significantly higher frequency of enactive texts logged for the given scenario with 62% (1047 out of 1698) of the total number of texts generated from students in that class compared to Class B at 38% (651 out of 1698). The subsequent examination unpacked the types of discourse strategies adopted in the two classes.

Table 2 presents the range in type and frequency of occurrence of Engagement features evident in students' enactive role play:

The following sections attempt to identify, classify and illustrate the various Engagement features and discuss their use in specific contexts. Underlined features highlight specific linguistic features discussed and a word in parenthesis as in 'wad (what)' provides a gloss for the actual word in Standard English.

Direct Assertion

In the declaration of a direct assertion (12.9%), no overt recognition of other voices was evident. The following are illustrations:

E.g No human has the authority to take life of any innocent person.
Every single life is valuable and it is sacred.

These directly asserted propositions in the Martin & White (2005,p.99) framework were 'neutral, objective or even "factual" as they did not openly reference other voices or acknowledge counter positions. According to Lyons (1977, p.794), the 'factive' stance on issues in these expressions presented claims definitively. The absolutist position of propositions presented was realized through the use of all-encompassing, definitive phrases such as 'No human' and 'every'. Direct Assertions realized definitive claims made on specific issues.

A higher frequency was registered for Class A (15%) compared to Class B (10%). The single voiced utterances were declared in categorical terms without any dialogistic alternatives. It is interesting to note that Direct Assertions were

Figure 4. Overview of engagement resources used in study (Adapted from Martin & White, 2005)

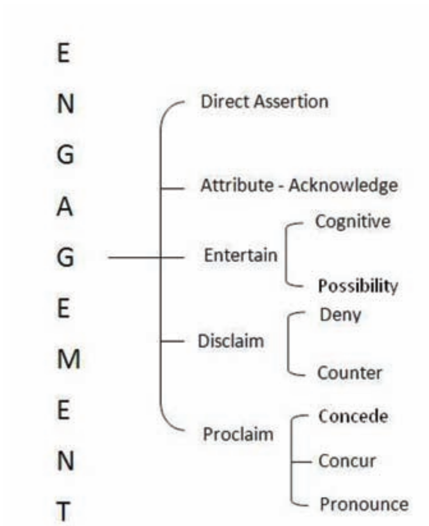


Table 1. Overall participation in students' enactive role play in Second Life

Participants **Total number: 45 students**	**Class A** **23 students**	**Class B** **22 students**
Logged texts Total number: 1698	1047 entries (45 per student)	651 entries (29 per student)

Table 2. Overall frequency of occurrence of engagement features in students' enactive role play

Engagement	Sub-classification	Frequency of occurrence (N=211)	Percentage (%)
Assertion	Direct	27	12.9
Attribute	Acknowledge	4	1.8
Disclaim	Counter	47	22.3
Disclaim	Deny	10	4.7
Entertain	Cognitive	57	27.0
Entertain	Possibility	16	7.6
Proclaim	Concede	8	3.8
Proclaim	Concur	13	6.2
Proclaim	Pronounce	29	13.7

consistently realized in Class A in all extracts collated in a more elaborated fashion with expansion of positions compared to Class B which displayed more sparse, terse and unelaborated forms of assertions as one-liners. The following are a few illustrations:

Class A

Whatever its motives and means, direct euthanasia consists in putting an end to the lives of handicapped, sick or dying persons. It is morally unacceptable. It goes against our belief in life.

Human beings do not have the right to decide when we die. Suffering might not be a pleasant experience, however, it does not mean we can just give up on living. Everyone suffers, but still can find joy and a purpose to life until God decides to take us to him.

Christians are generally opposed to euthanasia and physician-assisted suicide, on the grounds that it invades God's territory of life and death and has other ethical problems.

Class B

Every single life is valuable and it is sacred.

God is the only one who has the right to take lives away.

Life is certainly more precious than sufferings.

Propositions presented by Class A generally showed consistency in expansion through explanation and elaboration, providing a fuller background context to what were proposed. They were not isolated one-off instances and were characteristic of Class A students. These contrasted sharply to the overall brief assertions from Class B.

Attribute

The category of Attribute presented linguistic expressions carrying propositions 'grounded in the subjectivity of an external voice' (Martin & White, 2005, p. 98). Within Attribute, a sub category, Acknowledgement (Attribute – Acknowledge), was created where it associated 'the proposition being advanced with voices and/or positions that are external' (Martin & White, 2005,p.112) to that of the text:

E.g In genesis 1, God created all life in the book of revelations, God cleansed us from all sins and gave us the promise of eternal life.

Even in Islam pulling the plug is sinful.

The sources of endorsement 'in Genesis 1', 'in Islam' contextualized positions taken. In these examples, the attributed sources of arguments were drawn from external religious references by students in their role of the pastor. This feature showed the lowest frequency. Students did not appear to rely on external sources to lend credence to their arguments. This contrasted with another move, Proclaim-Pronounce, which will be elaborated on later.

Disclaim

Disclaim showed disagreement with and challenge of viewpoints presented. This occurred where a prior proposition was 'directly rejected' (Martin & White, 2005,p.117), replaced or held to be unsustainable. Two sub categories of Disclaim were evident:

i. Deny

This category involved an explicit negation and rejection of a proposition with the explicit negation marker 'not' in phrases such as 'do not agree', don't agree'.

E.g. I do not agree with removing her feeding tube as it is her life buoy to bring her back to shore.

I dont agree to letting my daughter go for euthanasia.

Compared to Disclaim:Counter, Deny showed a much lower incidence (4.7%). In directly dismissing propositions, it served to 'contract the dialogic space rather than to open it up' (Martin & White, 2005, p. 117) for discussion.

ii. Counter

This category included the formulations of current propositions as 'replacing or supplanting, thereby countering a proposition' (Martin & White, 2005,p.120). It introduced the alternative position after presenting an earlier claim in the same sentence. It showed the second highest frequency(22.3%). It was typically conveyed via discourse markers such as 'but', 'yet' which provided an overt signal of the negative stance taken:

Eg You have vowed in the church to be faithful to amy till death...but now you are going to put her to death..

Be faithful to amy..kok leong.. remember wad (what) you vowed in the church to amy... to be with her till death....yet u still wan (want) her to die!

Disclaim: Counter moves built up the argumentative force of assertions without resorting to explicit signalling of negation right at the outset as in Disclaim:Deny moves. They paved the way for influencing participants' thinking by presenting a situation first before offering an alternative perspective as in a 'Yes, but..' rhetorical pattern.

Class B students registered slightly higher levels of Disclaim-Counter (27%) compared to Class A students (19%). Class B students in particular showed engagement with the argumentative interplay in opposing opinions and viewpoints expressed. As seen in the data, they weighed claims and propositions presented from an alternative perspective.

Entertain

Entertain presented the proposition as one out of a range of alternative positions (Martin & White, 2005,p.104). Participants were seen to make an assessment of the viability of a proposal. Two sub-categories of Cognitive and Possibility were noted:

i. Entertain- Cognitive

This category was used most (27%) in expressing opinions. According to previous studies, 'evaluative' (Simon-Vandenbergen, 2000) and 'deliberative' function (Martin & White, 2000,p. 108) expressed authorial authority. It showed the highest frequency. It was manifested in mental process verbs such as 'I think', 'I believe'.

Eg I think we should seek the doctor's opinion on her percentage of recovery.
I believe whether an action is right or wrong depends on its consequences.

ii. Entertain-Possibility

This category indicated tentativeness in suggesting a viewpoint. It opened up a proposition for negotiation through allowing alternative views. This was in direct contrast to pushing for non-negotiable, categorical facts in a definitive form as it allowed for dialogic expansion in admitting possibilities. It was realized through modal auxiliaries such as 'may', 'might'; modal adjunct 'perhaps', and lexical item offering appearance-based postulation as in 'seem(s)':

Eg Perhaps in the long run she may recover.
There might still be hope for recovery.
It seem like we are killing our daughter if we were to euthanize her.

This realization of a proposition as contingent and probable occurred at a lower incidence (7.6%) with fewer participants framing their viewpoints as tentative propositions. These are emergent signs of participant 'hedging' (Hyland, 1999) or qualifying of claims as in academic writing convention.

Class B, in expressing probability through specific verb choices, showed a relatively higher incidence (10%) of Entertain-Possibility compared to Class A (5%). There was awareness of probable interpretations and viewpoints from others instead of rigidly held perspectives which were insisted upon. In qualifying positions, Class B students reflected a more considered response in not taking matters to extreme. There was a sense of moderation in expressing the validity of propositions. This indicated students were open to viewpoints which could be held up for scrutiny, and contributed to an expansive dialogic space (Martin & White, 2005, p.104).

E. Proclaim

Proclaim showed agreement as opposed to directly rejecting or overruling a contrary position. A new category, Concede, was created in addition to Martin and White's (2005) Concur and Pronounce. Compared to Pronounce (13.7%), Concede (3.8%) and Concur (6.2%) occurred less frequently.

i. Proclaim-Concede

This category indicated a giving in or acceptance of a prior proposal where there was acknowledgement, albeit grudgingly or hesitantly, of a proposition after presenting another proposition. It could also signal exceptions to a specific case. It was signaled by discourse markers such as 'however' and 'but'.

Eg I'm not sure if we should interfere over kok leong wanting to end amy's life; however, oh.. Alright, so i suppose the right course of action to take now, is to prove Kok Leong wrong and stop him from euthanising amy?
I do not oppose euthanasia but, i guess, yes, removing the tube is wrong.

It indicated participants thinking through and internally processing the value of propositions and was signaled by lexical items such as 'suppose', 'guess'. There was an awareness of the possible limits to the case or the extent of the validity of claims. The overall low incidence of the feature was understandable as this required participants' maturity of thinking in not being hasty to state propositions as categorical facts but remaining open to negotiation.

Proclaim-Concede showed a marginally higher incidence in Class A (6%) compared to Class B (1%) where students exhibited signs of moderation in thinking and awareness of the limits to the extent of validity of propositions presented.

ii. Proclaim-Concur

This explicitly showed agreement with propositions made and overtly expressed alignment with the views put forth.

Eg I agree obviously with reverend as I am a deep believer of Buddhism.
I wholeheartedly support the view that life is sacred.

The verbs 'agree','support' indicated clearly the agreement with the stance taken. The qualifier 'obviously', 'wholeheartedly' heightened the degree of the assertive force of the stance taken.

The lexical item 'of course' in the following example:

Of course..you wouldn't want ur (your) flesh and blood to die.

It indicated acceptance of viewpoint. It aimed at building solidarity and alignment with other participants in implicating this was certainly a position no one would ask for. It left no room for probable challenge of viewpoint from others. Proclaim-Concur functioned to present a proposition as 'a "given" within a particular community' (Coffin & Hewings, 2005, p. 41) and could deliberately deflect potential opposing views from other participants. It was dialogically contractive since it had the effect of 'excluding any dialogistic alternatives' (Martin & White, 2005, p. 124), particularly when the proposition was stated as 'universally, or at least as very widely held' (Martin & White, 2005, p. 124) in the given context. Proclaim-Concur, in deflecting potential challenge or countering of arguments, varied marginally at 5% in Class A and 7% in Class B.

iii. Proclaim-Pronounce

This involved authorial emphases by the participant and interpolations of views from an assumed or directly referenced position into the text. There was explicit authorial intervention (Martin & White, 2005,p.127) with the outright declaration of a proposition. It was third highest in frequency.

Eg From my Buddhist point of view, we believe that life is sacred as always and nothing is more worthy than life itself.
From my medical point of view, I contend that utilising euthanisia is just taking away the only hope of continuing amy's life.
Religiously speaking, I feel that it is like murdering one who is alive.

The explicit referencing of the source of authority (religious and medical) in the roles of Buddhist doctor and pastor conveyed the participants' conviction and firmness. There was indication of participant thinking in role with regard to the stance taken: 'my Buddhist point of view', 'my medical point of view', 'religiously speaking'. It unambiguously positioned the viewpoint as coming from the participants acting and deciding on issues in their roles. The authority of the participant's voice was reinforced through phrases carrying mental process verbs such as 'we believe', 'I contend' and 'I feel'.

This move showed a slightly higher incidence (15%) in Class A as an identity marking device for reinforcing the stance taken in the explicit reference to students' assumed roles compared to Class B students (13%). In Class B, propositions expressed did not necessarily specify students' particular role affiliation explicitly as in:

To me personally, i find that euthanaisa is wrong.
Based on my observation, i believe Amy has a chance of recovery

IMPLICATIONS

This study was an attempt to unpack how students in enactive role play expressed and exchanged opinions and viewpoints with each other, and to draw out specific discourse strategies and moves adopted. The SL virtual environment provided students a creative means to practise constructing and exchanging perspectives and viewpoints in a specific context, albeit with varying degrees of engagement. It was a challenge to engage the students in our study who were generally not known to 'speak their minds', think through issues from various perspectives and present their arguments clearly. Notwithstanding the challenges encountered, there was evidence of students constructing their claims and propositions, and responding to those put forth by their peers.

The technological affordances arising from MUVEs are positive in facilitating students' engagement with each other in real time over a sustained period of time without direct teacher intervention. SL enactments provided for critical self-expression and exchange of ideas, and underscored the importance of not only the nature of the technology but, more, the vicarious learning experience for critical engagement among students through focused enactive role play.

The scenario designed for enactive role play appeared to have generated involved participation to a certain level. It would suggest that the success of a virtual reality exercise is dependent on the carefully crafted topic(s) for enactment and virtual dialoguing. Coffin and Hewings (2005,p. 45) had pointed out the significance of task design in influencing the extent to which students 'draw on argumentation conducted in an electronic environment as a rhetorical resource'. The design of appropriate learning environments with engaging scenarios and concrete contexts for students to exchange perspectives and opinions meaningfully cannot be overlooked if we are serious in facilitating students' argumentation skills to enable them to meaningfully explore different perspectives of given issues, and to engage students critically and responsively.

There is a growing interest in communication and interaction in digital environments as evident in the studies represented in this volume. While this chapter has centred on virtual enactments in one scenario involving two classes of students, there is room for further research in tracking specific individual's participation across several scenarios. Further work on students' enactments could also be carried out in other contexts involving different disciplines. This would provide further insights into the strategies adopted over a period of time and in varied settings, especially if some students were noted to be more active and others less so, and enable both researchers and classroom practitioners to understand how students could be more effectively engaged with each other in such a potentially rich learning environment.

CONCLUSION

In this chapter, an exploratory investigation of students' engagement through enactive role play in the SL virtual world was presented. Attention was given to a primarily linguistic method of investigation in identifying discourse strategies and features realized in students' enactments of specific roles assigned. The study highlighted how students constructed opinions and exchanged perspectives on issues raised in the context of discussing euthanasia. The linguistic analysis based on Engagement resources (Martin & White, 2005) provided a systematic approach with a fine-grained description for capturing participants' construction of argumentative positionings. It highlighted discourse moves that acknowledged and supported or challenged differing perspectives. The investigation also highlighted particular linguistic resources for enabling dialogic expansion which allowed for 'dialogically alternative positions and voices' (Martin & White, 2005,p. 102) as through modality, Proclaim-Concede and Entertain resources such as Entertain-Possibility, and dialogic contraction in the form of Direct Assertion, Disclaim-Deny, Proclaim-Concur and Proclaim-Pronounce moves which acted to restrict or limit the dialogic space for argumentation. There is a need for students to be careful not to overstate the use of resources which are acknowledged to 'deny dialogic diversity' (Wu, 2005 p.110) and those which carry an 'unnecessarily high level of assertion, conveying a constriction of negotiation space' (Wu, 2005, p. 124). There is also room for exposing students beyond their present narrow set of certainty markers to modulating their claims and propositions with appropriate linguistic resources which convey potential possibilities for opening up the dialogic space.

Overall, there were emergent signs of participants thinking in role with regard to the stance or position taken from specific points of view based on their assigned virtual characters. There was varying evidence of students' recognition of religious and moral or ethical issues related to euthanasia with references to various beliefs and assumptions held by the different participants. While there were attempts at critical evaluation of perspectives put forth, the degree of argumentative interplay between the arguments and opinions varied with different participants. Differences existed in the extent to which students were open to other interpretations in offering propositions conveyed as contingent and as one out of a range of possible viewpoints. The study highlighted the need for students to be sensitized and to have their awareness raised as to the linguistic resources available for impactful argumentation in the virtual world. This would empower them for meaningful dialectical exchange with other participants which would ultimately enhance the overall argumentation process.

Although the study reported in this chapter is small scale with a relatively limited data set, the SL environment showed evidence of students engaging purposefully with each other and with the targeted topic and issues in discussion. Ultimately, it is hoped focused and sustained virtual dialoguing in SL in real time would equip students with the skills required to argue with clarity and cogency. Further follow-up studies evaluating the effectiveness of MUVEs in different contexts to achieve specific curricular goals would enhance understanding of the pedagogic opportunities for learning in immersive virtual environments.

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KEY TERMS AND DEFINITIONS

Argumentation: Ability to present well-grounded and reasoned arguments, and to engage with alternative points of view.

Dialogism: The ways and extent to which participants responded to prior messages and how they engaged with them in their response to, support of, challenge to and anticipation of views from other participants.

Enactive Role Play: Embodied approach to learning where thinking is not abstract but involves doing something concrete in the process of sense- or meaning- making.

Engagement: Linguistic resources for the individual voice of the author to position itself and engage with other voices and perspectives presented in a communicative context.

Second Life: Internet-based, immersive, three-dimensional, virtual environment developed by Linden Lab, US.

Virtual World: Computer-mediated, simulated, three-dimensional environment that presents the user(s) with a rich, visual experience and real-time communication with other users.

APPENDIX

Table 3. Role cards of characters involved in SL enactive role play

Role Card 1 **Rev Matthew Chia** You are the pastor of the church where Mr & Mrs Wee are members. You have spoken to your congregation on numerous occasions about the importance of guarding against relativism where values are concerned. Although you firmly believe that both active and passive euthanasia are wrong because God gives life and only He has the right to take it away and any attempt to take a life is tantamount to murder, you also offer a perspective which is sensitive to what other faiths hold. Mr & Mrs Wee have approached you to seek your counsel on the right course of action to take. You wish to emphasize to them the importance of the sanctity of life, and how this is perceived by individuals, regardless of what faith is involved. Richard Wee: Amy's father Shirley Wee: Amy's mother Dr Martin Loh: Amy's physician	**Role Card 2** **Shirley Wee** You enjoy listening to Rev Matthew Chia's sermons as you believe that he teaches the Bible accurately. However, you did undergo an abortion after conceiving your first child when you found out she had down syndrome. You are uncertain whether your decision then was justifiable even though you are sure that you had aborted her because you did not want her to suffer. You are doubtful of Kok Leong's motive for wanting to end Amy's life because you know how unhappy Amy was in her marriage. You believe that an action is wrong if someone does not carry it out with the other person's interest at heart. You are keen to meet Dr Martin Loh because you would think that his estimation of Amy's chances of recovery would determine the right course of action to take. Rev Matthew Chia: The Wees' Spiritual Counsellor Richard Wee: Amy's father Dr Martin Loh: Amy's physician
Role Card 3 **Richard Wee** You have been attending church with your wife but you do not always share the views of your pastor. You consider yourself a practical man. You believe that whether an action is right or wrong depends on its consequences. This principle has helped you make some very difficult decisions in your life. However, you are uncertain now how this applies in your daughter's case. You would like your pastor to help you understand and evaluate your personal beliefs in relation to the beliefs espoused by the church. You are also planning to videotape your daughter to capture signs of life but you want to know what it means to be "alive". You would like to hear both the religious and medical explanations. Rev Mathew Chia: The Wees' Spiritual Counsellor Shirley Wee: Amy's mother Dr Martin Loh: Amy's physician	**Role Card 4** **Dr Martin Loh** You have been attending to Amy since she was admitted to the hospice. On a daily basis, you see patients with terminal illnesses and you try your best to help them manage their pain before they pass on. You do not think that Amy is facing the same predicament as your other patients. Based on your observations, you are convinced that she can be rehabilitated to swallow her own food and perhaps, in the long run, recover. While you do not oppose passive euthanasia, you believe that removing the feeding tube from Amy is wrong because it seems that that feeding tube is the life buoy that she needs to help her get ashore eventually. You are also known to be a staunch Buddhist and offer your perspective on the sanctity of life based on your faith. Rev Matthew Chia: The Wees' Spiritual Counsellor Richard Wee: Amy's father Shirley Wee: Amy's mother
Role Card 5 **Student moderator** Your role is to take note of each character's point of view regarding the issue(s) being discussed, whether these have changed over the course of the discussion and surface possible views that they could have raised. You should also examine their interaction with one another to determine how they perceive other characters and why they perceived them as such. Consider how they can better relate with one another. Rev Matthew Chia: The Wees' Spiritual Counsellor Richard Wee: Amy's father Shirley Wee: Amy's mother Dr Martin Loh: Amy's physician	

Chapter 43
Students' Evaluation of a MOODLE Resource in the Federal University of Technology, Akure, Nigeria

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ABSTRACT

This chapter presents an exploratory study on students' evaluation of a MOODLE teaching and learning resource (the Wiki in this case) in the Federal University of Technology, Akure, Nigeria. 85 students (11 female and 74 male) were guided in the use of a wiki website for language learning in a context of English for Academic Purposes (EAP). Data on their opinions on the resource was collected through questionnaires and feedback on the wiki. T-test was employed in data analysis and the results revealed that in spite of the challenges encountered in using the website, the students' attitude towards using it was positive as they were enthused about using the novel approach for research and learning purposes. The results also indicated that there was no significant difference between the opinions of male and female respondents. Challenges associated with the use of the resource are highlighted and recommendations presented.

INTRODUCTION

The new knowledge technologies have maximized teaching and learning opportunities and have been used to configure patterns of social interactions in the classroom. Bill Gates (cited in Ker, 2006) rightly concludes that the information superhighway will transform education in the first quarter of the twenty-first century. The global, expansive nature of online resources allows for simultaneous delivery of pedagogic content to learners in all parts of the world and enhances widespread use of web-based instruction and e-learning opportunities. The new media have been responsible for rapid technological advancement and development in this age and they have remained at the centre spread of global socio-economic change. More importantly, they have been used to maximize both teaching and learning opportunities in both first and second language situations and in the teaching of EAP which is the major concern in this work.

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Empirical research in some parts of the world (Dougiamas & Taylor, 2003; Kol & Schcolnik, 2008; Lixun, 2004; Nash,2008) reveals that a technology-enhanced teaching/learning experience is a useful way of encouraging collaborative work, learner autonomy and helping students acquire both language and research skills. Studies of this nature are yet to gain currency in research and pedagogic practice in Africa except for report on its pedagogic application in the University of Botswana, Botswana (Alimi, 2008) and in the Federal University of Technology, Akure, Nigeria (http://www.futagns.pbwiki.com). Another instance of the pedagogic use of the technology is provided in the Virtual Institute for Higher Education Pedagogy (VIHEP) program put in place by the National Universities Commission, the regulatory body for university education in Nigeria. The program provides academics in Nigeria with internet-based training in modern methods of teaching in tertiary education and opportunities for academic and professional development.

Ways that Nigerian students successfully used global technologies in spite of the challenges they faced are illustrated in this paper; an overview of these challenges and recommendations are also presented.

Globalization and Appropriate Methodologies in Tertiary Education: A Challenge for Nigeria

Lubbers and Koorevaar (1999, cited in Aborisade, 2005) define globalization as:

a process in which geographical distance becomes a factor of diminishing importance in the establishment and maintenance of cross-border economic, political and socio-cultural relations… The potential internationalization of relations and dependencies creates opportunities, but also causes fear, resistance, action and reactions (p.2).

Globalization is closely linked with higher education: both have universal missions which is the dissemination of knowledge. The pursuit and advancement of knowledge are based on the free circulation of ideas across several boundaries, scientific fields and academic disciplines. Globalization has an intrinsic unifying potential yet it is affected by forces which foster digital divide which in turn results in animosities, intolerance, terror and violence, and increased human insecurity. Higher education too has immense benefits: it is widely acknowledged that it can address the major challenges that the world is currently facing: inequalities, poverty, environmental degradation, climate change, pandemics such as HIV/ AIDS, gender imbalance in Science and Technology (SciTech) etc. Societies that do not pay sufficient attention to its higher education suffer social, economic, political consequences as well as scientific and developmental marginalization and exclusion.

Though immense benefits accrue from globalization, it does not encourage sustainable development as it leaves developing nations in deficit economically, socially, culturally and technologically. Furthermore, issues of poverty and underdevelopment prevent many Nigerians from gaining access to computers, for instance, Adegbija (2004) observes that more than 90% of Nigerians have no access to computers, the Internet and other technological facilities and only about 20% of Nigerians demonstrate competence in the English language which is the language of technology.

Language teaching/learning and technology have become inseparable; technology too has become the backbone and livewire of contemporary language teaching methodologies (Adegbija, 2004). As mentioned above, developing economies stand to gain from a technology-based environment and must therefore be well positioned for globalization and the knowledge economy. The ICTs have a pervasive effect on higher education and the latter is positioned by the international community as a central site for facilitating the skills, knowledge and expertise that are vital to economic and social development in low-income countries (World Bank, 2005). Moreover, the ICTs present opportunities for higher education especially in developing economies to facilitate international links and cooperation. Not only that, higher education in Nigeria must apply the benefits of globalization to align itself with current realities which will help enhance the relevance and quality of her university programs and the mode of delivery of its services.

Identified problems in the teaching of English in Nigeria, including lack of adequate teaching and learning materials, and poor standards of English, which had a negative effect on the standard of education and on the socio-economic development of the country, led to the introduction of the Communication Skills Project (COMSKIP) and Communication Skills Project for Universities of Science and Technology (COMPSKIPTECH) in the late 1980s and early 1990s. The former was targeted at conventional universities while the latter was designed for specialized universities in Nigeria. Both projects, which were inspired by a need to improve the teaching and learning of English in its use as a medium of instruction in Nigerian universities, were introduced and funded by the British Council and the National Universities Commission.

Before the introduction of the projects, the teaching of the Use of English in Nigeria was not appropriate to the needs of the language learner; neither was it well executed due to lack of skill on the part of the teacher. By the end of the project in the early 1990s, new and relevant teaching ideas were introduced and tried out. However new challenges which were caused by rapidly changing technologies, demands of globalization, and actualization of the Millennium Development Goals have emerged.

In response to these challenges, some Nigerian academics are turning to the use of technology in language teaching and they have adopted the use of approaches like Enquiry-based Learning (EBL) which is a self-directed, active learning where students pursue their own line of enquiry by drawing on their existing knowledge and collaborating with others in their subject areas. The deployment of this method is anchored on the constructivist approach which emphasizes interactive, collaborative learning and a flexible curriculum (Marlowe & Page, 2005). The methodology they employ is informed by the communicative language teaching approach; it is preferred because 'it is message and learner centered, functional, participatory and experiential' (Odejide, 2003 p.5).

Through new and dynamic methodological approaches like blended learning, diverse delivery channels ranging from face-to-face to technology-based systems and teaching tools have been integrated in the learning environment. Also social networking platforms such as mobile or online systems such as blogs, wikis, podcasts downloadable to MP3 devices, e-mails, cell phones and discussion forums have been employed to facilitate both teaching and learning in advanced countries. Our exploratory work in this area in the English Unit of the University of Technology, Akure, Nigeria is reported in this paper. Against this background and the need to match current trends and development in language teaching, the Use of English Unit of the Federal University of Technology, Akure, Nigeria piloted the use of a MOODLE resource-the Wiki in teaching their integrated Study Skills (Reading and Writing) course (GNS 102) in the academic session of 2008. The course content, students' assignment, peer review of students' assignment, students' comments, uploaded materials, links to other sites etc are available at http://www.futagns.pbwiki.com).

Gender Issues in Science/Technology and Language Learning

Another concern for Nigerian educators is the issue of gender bias in SciTech. Morley et al (2005) in their study on gender equity promotion and impediment in some Commonwealth countries report that life in universities is a highly gendered experience. More specifically, female subordination in Nigeria is linked with the effects of patriarchal attitudes to women and a consequence of this is gender gap in enrolment in higher education particularly in SciTech. Jibril (2003) reports that Nigeria has the second highest university enrolment rate in Africa (after Egypt which has the highest) but women represent only 35% of the total number of students enrolled in universities and they are underrepresented in engineering and technology courses. Though the National Policy on Education does not discriminate against sex, females in Nigeria are educationally disadvantaged probably because of socio-cultural factors that constitute an impediment in the way of women's advancement. This discrepancy persists in science and technology and scholars (Adetunji, 2006; Fuwape, 2006) have attributed this to major factors like cultural beliefs, male dominance and gender bias.

Gender bias about women in science is promoted and perpetuated by misconceptions that 'hard' subjects are not suitable for women, that SciTech is associated with intellectual gifting and masculinity therefore women who choose to study the sciences are thought to be transgressing socially prescribed rules on femininity (Morley et al, 2005). Shah (2001) adds that femaleness is erroneously perceived as incompatible with intellectual authority. Apart from the prejudice women in science face, the curriculum of schools is mainstreamed in favor of male students who dominate classroom time and space. Sadker and Sadker (1994) provide proof of this by reporting that, "of all the subjects on the curricular landscape, physical science is the most male of all." (p.123) Gender inequities are also reinforced in pedagogic materials (Sadker and Sadker, 1994; Zittleman and Sadker, 2002-2003) and this phenomenon may hinder female students from learning science and holding positive views about their ability to study SciTech, a domain that is considered a predominantly male preserve. Taking off from this therefore, this study considers gender differences in the opinion of male and female students on the use of a computer resource in language teaching.

Research in the domain of the new technologies and language teaching is just gaining prevalence in Nigeria; the current work therefore reports on an exploratory work done on applying one of the resources of the MOODLE- the Wiki in teaching an EAP web-based course in the Federal University of Technology, Akure, Nigeria. The objective of this study is to consider the views of the participants on the use of the MOODLE resource (Wiki) in their Use of English Course. In order to address the concern of this research, the following hypotheses were tested:

Ho1: There is no significant difference in the views of female and male participants in the use of the Wiki as a learning resource.

Ho2: There is no significant difference between students' evaluation of the Wiki and their final marks in the writing component of an exam that tests their research and writing skills.

THE MOODLE RESOURCE

The MOODLE- an acronym for Modular Object-Oriented Dynamic Learning Environment - is a free learning management system that is used to create powerful, flexible, and engaging online learning experiences. It has been popular as a course management system and it is convenient and readily available for pedagogic purposes in non-English speaking countries like Japan (Graf & List, 2005; Moloney & Gutierrez, 2006**)** and in contexts of English as a Second Language (ESL) and English for Academic Purposes (EAP).

In summarizing the global benefits of MOODLE for teachers, Schulte-Mecklenbeck (2004;

cited in Moloney & Gutierrez, 2006) claims that: 'Handling is easy and intuitive, community support is great, and there is the possibility of suggesting new features and working on them in the spirit of open source software.'(p.49). Goba et al (2004) investigated various existing learning management systems at the University of Cape Town's Computer Science Department, and an evaluation of four different instruments showed that the MOODLE Learning Management System offered its users many benefits in terms of the services and features. The MOODLE is based on the Social Constructivist Pedagogy (Marlowe & Page, 2005) that adopts an interactive learning style premised on the idea that people learn best when they interact with learning materials, construct new material for others, and interact with other students. In addition, the MOODLE offers different types of activities which permit students to interact with each other.

These activities encourage student-to-student interaction, learning exploration and also make courses more interesting and increase student participation and satisfaction. The resource employs the following to create social course material: Chat, Forum, Glossary, Wiki and Workshop. The chat module creates opportunity for live online chat between students; it also provides opportunity for students to collate work and exchange information. The forum in the MOODLE Resource may use online bulletin boards; discussions are the equivalent of topics or threads and only the teacher can create discussions or post replies; the glossary activity allows participants to create and maintain a list of definitions, like a dictionary, a glossary is a list of words and definitions that students can access. A course creator can also allow students to add to a glossary. A wiki (a type of server software that enables users to create or alter content on a Webpage) makes it possible for students to collaborate on a book-like writing project. A wiki is easy to use; it is interactive, organized by date and it encourages informal discussion among participants. This makes it a powerful tool for recording the thoughts and progress of the students. Old versions of a Wiki are never deleted and can be restored. Wikis can also be searched, just like other course material. Workshop supports collaborative, graded efforts among students (Rice, 2006).

Our selection of MOODLE, an open source e-learning platform, is supported by its user friendly interface. This resource offers immense benefits for learners, teachers and materials writers: for the learners, information is centrally located; files, tasks and instructions are provided on-line, assessments are submitted and feedback is received. Also teachers can monitor students' on-line behavior in a secure environment and they can also upload materials for students' use. Finally, for materials' developers, the MOODLE is favored because it helps organize classroom syllabus, updates learning materials and adjusts tasks and activities to suit learners' needs and preferences. More still, its availability compared with the expense of purchasing commercially produced teaching materials makes it a preferred choice for learners from developing economies.

The MOODLE access chosen in our case was the Wiki- the Web 2.0 collaborative wiki. The Internet and e-mail were the tools employed in using this access. Both tools, the Internet in particular, help to generate students' interest and engagement. Researchers (Kung, 2005; Lee, 1997) note that the Internet has been increasingly considered as a pedagogical tool which creates innovative language experiences for L2 teachers and learners. Kung (2005) adds that the World Wide Web has unique qualities that make it a suitable tool for foreign language learning and it is a rich database of authentic material in English. The visually engaging documents on the Web have multimedia capabilities and interactive functions which make them an interesting medium to conduct instruction particularly in EAP contexts.

Learners' Context

The context of the research is the Federal University of Technology, Akure, Nigeria. The university aims to be one of the best Universities of Technology in the world and is committed to carving an enviable niche for itself as a centre of excellence. The course is a Use of English (an EAP) course that is geared towards the academic and latter professional needs of students of SciTech. The vision of the university, the need to meet global requirements for students of SciTech, and the need to reposition the course to match contemporary trends in language teaching informed the need to integrate technology into the course curriculum and pedagogy. There are five schools in the university: School of Agriculture; School of Sciences; School of Environmental Technology; School of Engineering and Engineering Technology and School of Earth and Materials Sciences. One English language teacher is assigned to each school. Each school has an average of 400 + students and each of these schools is divided into groups of four or five for administrative convenience. The yearly student intake is about two thousand plus; in all there are twenty-nine academic departments in the University and the current study involved only five departments from the School of Engineering and Engineering Technology: Agricultural Engineering; Materials and Metallurgical Engineering; Civil Engineering; Mechanical Engineering; Electrical and Electronics Engineering. Students of Mining Engineering were not included because the class was taught by another teacher.

The Students

The participants are first year undergraduates from the School of Engineering and Engineering Technology. To qualify for admission into the University the students had to obtain a minimum score of two hundred in their Joint Admission and Matriculation Board (JAMB) qualifying exams and credit grades in English, Mathematics; Physics; Chemistry; Biology or a relevant science subject.

The Course and Teaching Methodology

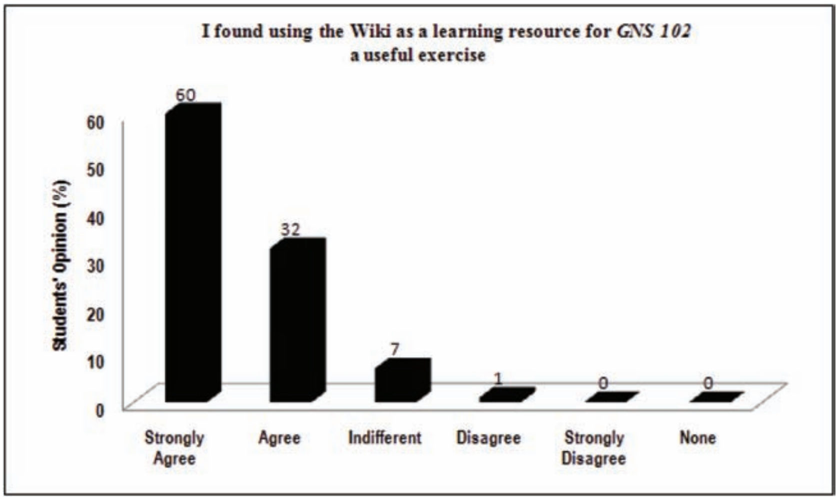
GNS 102 is an EAP course that is taught in the second semester in the Federal University of Technology, Akure, Nigeria. A needs analysis conducted (Aborisade, 1997) informed the course design and the integrated Reading and Writing component of the course. With the introduction of the Wiki, the course was designed in units of activities which involve: general briefing given to students on the use of the Wiki; groupings of students (they formed five member groups and each student had a role to play in carrying out the assignment of the group); information search on the term paper titled- 'Climate Change'; collecting and organizing relevant materials; posting topics on the Wiki; reading critically; outlining; writing references; handling graphical information; writing paragraphs; writing the first draft; editing; presenting the work for the teacher, peer review and uploading the final draft.

The course adopted a communicative language teaching approach; the students' profile, diverse interests, aptitude and learning styles were taken into consideration in choosing this methodology. An integrated skills approach was also used for the course in which case the skills and strategy in reading were transferred to writing. The methodological approach in use prior to trying out the new method employed a face-to-face methodology; the new method adopted the blended learning approach which integrated face-to-face methodology with the use of technology.

METHODOLOGY

Convenience sampling was used in selecting the students from the School of Engineering for the

Figure 1.



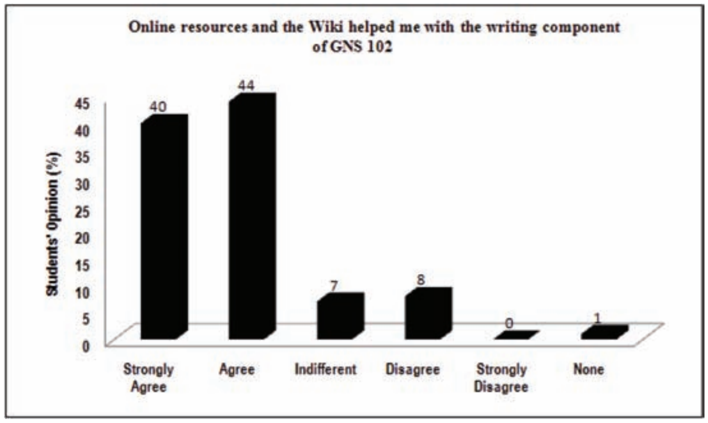
experiment and five out of the six departments earlier mentioned were included in the study. One hundred and twenty questionnaires were distributed randomly to students and only ninety-three were returned. Out of these, eight were discarded because they were not properly filled. Questionnaires were used to gather information on the students' attitude on the online resource. The twenty-four item questionnaire is in three parts: Section A requires demographic information such as: students' sex; age and department; Section B contains questions that measure students' attitude on the use of the Wiki as an online learning resource and Section C asks questions that generate free response answers which provide additional information on students' attitude on the online resource. A five- point Likert scale was used to indicate the degree of agreement or disagreement with each statement. The scales used are: Strongly Agree (SA); Agree (A); Indifferent (I); Disagree (D) and Strongly Disagree (SD); these options are apportioned weights of 5, 4, 3, 2, and 1 with high scores of 5, 4 respectively representing high positive attitudes for positive items. The Wiki e-platform was used to keep track of the student's activity, participation and contribution. Students' feedback on the Wiki was also used to generate data. The students provided feedback on: their evaluation of the online course; difficulties they encountered; advice/critique of project topics/paper written by their colleagues. Only feedback on students' evaluation of the course was considered in this study. T-test was used in analyzing the data and the research findings are presented below.

Results and Discussion

The results of the study which sought to find out about the students' views on the use of the Wiki as an e-learning platform are presented in Figures 1 to 4.

The result in Figure 1 indicates that 60% of the participants strongly agree that they found using the Wiki as a learning resource for GNS 102 a useful exercise. This suggests that majority of the students hold positive views on the use of the Wiki as a learning resource. This information is corroborated by the finding in Figure 4; here the results under the category 'Wiki and online resources are not beneficial for learning Use of English' show that 55% of the respondents strongly disagree with this. This implies that 55% of the participants indicate that they find the Wiki and online resources beneficial for learning Use of

Figure 2.



English. Figure 2, shows that 40% strongly agree that the e-learning resource and the Wiki helped them with the writing component of GNS 102 and 44% agree; these positive ratings all point to the fact that the participants consider the e-learning platform useful for learning Use of English.

Fig.3 indicates that 44% of the respondents strongly agree that they would like to use the Wiki and other online media to study other courses in the university; and 34% agree that they would like to do same. Some excerpts from the free response section of the questionnaires administered to the participants show they were enthusiastic about the use of the learning resource:

Respondent 16: *'This is a brilliant idea and a good initiative, Keep it up.'*

Respondent 43: *'It is a good learning resource despite the numerous problems l encountered.'*

Respondent 27: *'Other departments in the university should emulate this.'*

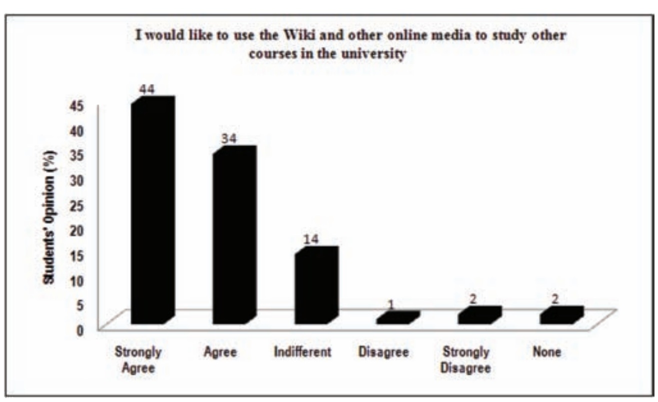
Respondent 83: *'l feel at par with my counterparts from other parts of the world'*

Respondent 39: '*It is a very effective way of ensuring quality in our educational* system.*'*

Respondent 81: *'The Wiki was fun and it was interesting'*

Respondent 65: *'It should be applied to other courses in the University and funds should be provided to upgrade the web-site.'*

Figure 3.



Challenges that the respondents encountered when they were using the online resource include claims that the resource was time consuming and expensive. Some of them also claimed to have problems with meeting deadlines; accessing the website; dealing with network congestion; epileptic supply of electricity; securing the safety of items such as assignments that are posted on the site; and finding space in cyber cafes visited. The questionnaire was administered six months after the course had been concluded.

A total of 197 comments were recorded from 4.28pm, 1st July 2008 to 1.27am, 20th September, 2008 from the FrontPage of the www.futagns.pbwiki.com site (Appendix 1). These comments were posted in the semester that GNS 102 was taught.

'Good job, more power to Futa's elbow.'

'The site is informative and educative…this is great…ideas rule the world.'

This is a job well done. Cudos to GNS 102 lecturers…'

'I'm sure we will be receiving lectures very soon online….this is coooooool'

'The futagns pbwiki came just in time, it's sometin l can really boast of'

'This wiki is unique, special…'

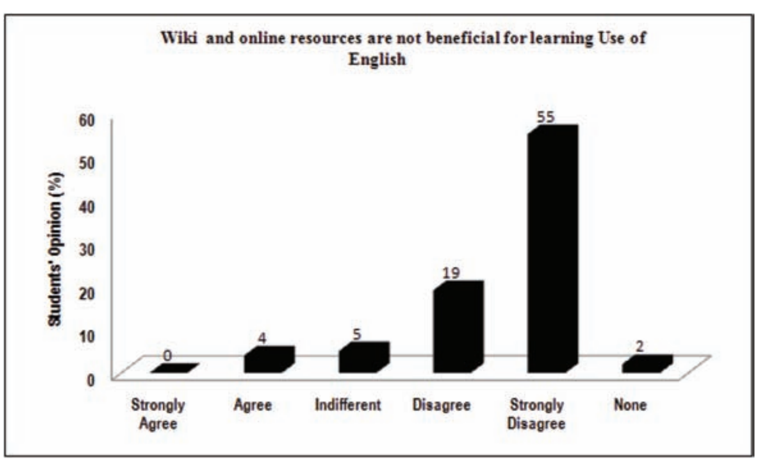
'This is the best method of impacting knowledge into students.'

'This is a good work but the site is somewhat slow.'

'The technicality of this site is superb, only that it seems more information added would help in accessing the pages.'

Challenges that the students associated with the learning resource include the claim that it was time demanding, the site was slow at times and classmates often stole the ideas of others. Apart from some of the problems mentioned above,

Figure 4.



students enjoyed the use of the online resource and studies by other researchers (Gomez et al, n.d; Ivanov n.d; Kung, 2005) also indicate that students showed favorable opinion on the use of the MOODLE resources for learning purposes.

The theme of the term paper as earlier mentioned was 'climate change' and subthemes or titles were drawn from this after the students had gathered materials from various sources: books; journals; internet; interviews etc. The participants worked in groups of five with each member performing one of the following functions: group leader (he/she coordinated all group activities); secretary; treasurer (who kept money contributed for paying for air time, word processing etc); technical officer (he/she had to be computer literate) and public relations officer (he arranged interviews and such related matters). A group page was created for each group on the wiki site and information on proposed topics was put on these pages. Students and teachers sent in feedback in the form of critiques which helped in eventually shaping the topics and preparing a focus for the work. Topics were approved if they had gone through this process. Examples of approved topics include:

- *Climate Change: Impact on Seasonal Transmission of Malaria in Ilaje, Ondo State.*
- *Climate Change: Repercussions on Human Health and Buildings in Ekwulobia, Anambra State*
- *The Effect of Excessive Rainfall on Electricity Supply in Ikeja, Lagos State.*
- *The Effect of Low Rainfall in Kano on the Prices of Grains Sold in Akure in 2008.*
- *Increased Flooding and its Effect on Buildings in Victoria Island, Lagos State.*
- *Gas Flaring as an Agent of Climate Change in Bonny Island, Rivers State.*
- *The Effect of Acid Rain on Fish and Aquatic Life in Ilaje Community, Ondo State.*
- *Climate Change: Environmental Degradation and Human Rights in the Niger Delta, Nigeria.*
- *Effects of Ozone Layer Depletion on Human Health in Badagry, Lagos State.*

The expected length of the term paper was four pages (word processed) and the students worked on their group pages almost daily. They worked more often on these at the beginning of the course but as they were faced with challenges such as: paying for air time, technical hitches associated with the use of the wiki and impending exams, this thinned out to every other day, three days interval and so on. The students worked in the university computer center and in nearby cyber cafés when the university server was down. A few had laptops and a small number used the ones provided by their friends so these ones had easy access online. Exposure to several articles on the internet and in journals and teacher insistence on the use of the convention of genre analysis (Swales, 1981) guided them in their discourse. They were expected to write several times in the wiki and send manuscripts to the teacher; these activities were followed by peer review and teacher comments which helped to shape the work. The final product was posted on the wiki.

Using the genre analytic framework they employed the idea of Moves (i.e. rhetorical acts that have communicative intentions) to communicate rhetoric functions. For example for the Introductions of their term paper, they were required to write a short paragraph using the following Moves:

Move 1: The thesis statement or general overview of the work which must be related to the topic.
Move 2: Definition of key terms.
Move 3: Description of area under consideration.
Move 4: Aim of study.

The language used was basically academic and formal; students' exposure to several articles and requirements of the course gave them insight into the convention of academic writing. A typical example is provided in the Introductory section of the assignment sent in by Group 15 from the Department of Mechanical Engineering:

The Effect of Low Rainfall in Kano on the Prices of Grains sold in Akure.

The shortage of rain supply in Kano in the beginning of the year 2008, has adversely affected the prices of the principal grains being sold in Akure. Low rainfall is defined by Hassan Karofi (2008) as the fear of draught as a result of poor rainfall (allafrica.com). Kano is the administrative headquarter of Kano State. It is located on the co-ordinate 12.00N 8.31E in the north eastern part of Nigeria. It is the major production area for groundnut, beans, soya beans etc which makes it the most industrialized commercial city in the north (Wikipedia/kano.com).Akure on the other hand is the administrative headquarters of Ondo State. It is located on 7.25N and 5.125E in the south western part of Nigeria. It is a major trading zone for grains that come from the north [most especially Kano] (Wikipedia/Akure.com). This paper intends to focus on the effect of low rainfall on the agricultural output in Kano and how it adversely affects the prices of goods in Akure.

Here exposure to materials on the internet, published articles and adherence to genre analytic framework all affected the language, style as well as the structure of the assignment. The students who wrote the excerpt above followed the idea of the suggested moves to write their paper.

Ho1: There is no significant difference in the views of female and male participants in the use of the Wiki as a learning resource.

Table 1 above indicates that there is no significant difference in the views of female and male participants in the use of the Wiki as a learning resource. Since the P value of the t-test (0.068) is greater than .05, the null hypothesis is accepted indicating that there is no significant difference in the views of female and male participants in the use of the Wiki as a learning resource. The implication is that both genders hold the same views on the use of the online resource. This finding discredits the notion held that femaleness is incompatible with intellectual authority; if indeed women's minds are not wired to handle science and associated disciplines like computer we expect that they will hold negative views on the application of the computer as a learning resource.

Ho2: There is no significant difference between students' evaluation of the Wiki and their final marks in the writing component of an exam that tests their research and writing skills.

Since the P value of the t-test (0.010) is less than .05, the null hypothesis is rejected indicating that there is a significant difference between students' evaluation of the Wiki and their final marks in the writing component of an exam that tests their research and writing skills. The implication is that there is no relationship between the opinions the students expressed and the scores they obtained in the exam. This discrepancy may be accounted for by the fact that questionnaires may not be good for self assessments as the respondents may have provided information that was not correct. Therefore a combination of instruments such as interviews and verbal protocols are recommended for studies of this nature in order to facilitate gathering information that is reliable.

Problems and Solutions

The problems associated with the use of the Wiki are drawn from the responses of the students:

Table 1. T-Test on the views of female and male participants in the use of the wiki as a learning resource

	Variable 1	*Variable 2*
Mean	40.72727	43.5
Variance	86.01818	25.21233
Observations	11	74
Pooled Variance	32.53834	
Hypothesized Mean Difference	0	
Df	83	
t Stat	-1.50422	
P(T<=t) one-tail	0.06816	
t Critical one-tail	1.66342	
P(T<=t) two-tail	0.13632	
t Critical two-tail	1.98896	

Key: S = Significant at P<.05

these are discussed under technical; institutional and financial. Many of the students said that they had technical problems accessing the web-site; servers were slow and they experienced network congestions. The erratic supply of electricity was a major problem students had to contend with and many of them claimed that many operators of cyber cafes increased the amount charged for paying for airtime each time they used generators to supply electricity. Servers were slow and students wasted time at cyber cafes as a result of technical problems associated with this; also the sudden increase in the number of users of cyber cafes was a challenge operators of cafés had to face. The computer resource center owned by the university could not deal with the demands placed on it by the sudden rise in the number of students wishing to use the facilities; in all over four hundred groups were using internet facilities almost every day or every other day for one semester. Security of the items posted on the Wiki was another problem students encountered. The technical hitches and lack of security for assignments posted online often caused irritations for students.

The institutional problem encountered includes the inability of the university internet facility to perform at peak efficiency to meet the needs of the students. The solution to this requires an upgrade to the capacity of the website of the university to accommodate the new demand imposed by the blended learning approach to teaching English. Adequate security must also be provided to protect the website from the activities of hackers. Efforts towards using the MOODLE as a learning resource for all courses mounted in the university must be intensified; the Power Holding Company Limited (a company in Nigeria that is responsible for the supply of electricity) should be more alive to its social responsibility.

Finance was a basic problem students faced and only 3.5% of the respondents said that they had laptops or desktop computers; clearly this explains why the demand for the use of facilities provided by cyber cafes was high and operators capitalized on the situation by hiking the price of air time. Assignments students submitted were word processed at cyber cafés, business centers and on personal laptops/desktop computers in a few cases; this resulted in problems with meeting deadlines and posting assignments on the Wiki. For a few of the students who are not computer

Table 2. T-Test on the difference between students' evaluation of the wiki and their final marks in the writing component of an exam that tests their research and writing skills

	Variable 1	*Variable 2*
Mean	43.14118	46.03922
Variance	33.02745	96.69157
Observations	85	85
Pooled Variance	64.85951	
Hypothesized Mean Difference	0	
Df	168	
t Stat	-2.34591	
P(T<=t) one-tail	0.010074	
t Critical one-tail	1.653974	
P(T<=t) two-tail	0.020148	
t Critical two-tail	1.974185	

Key: S = Significant at P<.05

literate, lack of skill constituted additional problems; some students also had problems adjusting to a novel way of being taught Use of English.

Lack of access to computers and even lack of skill in its use are related to issues of poverty. The Federal and state governments, concerned individuals, industries, banks and big companies can assist indigent students to buy computers which they will pay for on graduation. Most universities in Africa are underfunded; when they receive increased funding from government and assistance from shareholders they will be able to spend it to improve their existing facilities. When this happens a university like the Federal University of Technology Akure will be able to upgrade the university website, make it fully functional and attend to research that will generate alternate sources of energy to power internet facilities. Problems of lack of skill in the use of computers can be overcome by making computer literacy one of the criteria for university admission.

Recommendations and Conclusion

In the light of the study just carried out, the following recommendations and conclusions are presented:

- The Federal University of Technology Akure, Nigeria and other universities in Nigeria should adopt the use of the MOODLE as a learning management system. Research findings reveal that students find it an interesting medium for studying therefore using it is likely to facilitate learning. Not only that, use of the MOODLE for pedagogic purposes is centered round a philosophy that believes that students can use the medium of technology to enhance learning opportunities, promote critical and rational thinking therefore lecturers in Nigeria can use the resource to encourage cooperative learning. Use of the MOODLE resource will help our graduates to develop capacities such as critical thinking, problem solving, teamwork, mastery of computer and other knowledge technologies that would enable them to cope with the requirements of knowledge societies. Further the use of the MOODLE will enable language teachers to function as facilitators, coaches and guides and not sources of knowledge.
- Efforts should be intensified by institutions and lecturers towards securing access to

and mastery of ICT-based educational materials. Once this is done, such materials need to be adjusted to local needs and there will be a need to train local teachers to use them. Since the teaching profession in university education is changing fast, teachers must assume new roles and combine that with relevant matching skills. Students too must take responsibility and initiative to acquire ownership of computers and literacy that accompanies the new technologies.

- To meet the increasing demand for higher education requires funding from several sources: government, business, industry and the public sector and direct beneficiaries such as students and their families. Student support schemes such as grants, bursaries and student loans can be used to offset possible negative effects of lack of funds for students.

CONCLUSION

This study which investigated students' evaluation of an online resource employed in teaching an EAP-web-based course in the Federal University of Technology, Akure, Nigeria revealed that majority of the students hold positive views on the use of the Wiki as a language resource. The results of the study also showed that there was no significant difference in the views of female and male participants in the use of the Wiki as a learning resource. Also no significant difference was found between students' evaluation of the Wiki and their final marks in the writing component of the examination that tests their research and writing skills. Some of the challenges the students' encountered are associated with the claim that using the Wiki was time consuming and expensive; they also encountered technical problems such as difficulty in accessing the web-site, network congestion, dealing with erratic supply of electricity etc. Some of the recommendations made include adopting the Wiki as a learning management system in teaching EAP in second language contexts and funding of university education by all concerned. Challenges for the future include provision of adequate funding, meetings learners' dynamic language needs and continuous staff training.

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KEY TERMS AND DEFINITIONS

Blended Learning: Refers to the combination of face-to-face instruction with e-learning/mobile learning; the online or mobile components often used in blended learning include blogs, wikis, podcasts downloadable to MP3 devices, cellphones and discussion forums.

Communicative Language Teaching: A language teaching approach that is learner centred, uses authentic and meaningful communication and believes that language is acquired through a process of creation construction.

English for Academic Purposes (EAP): English for Academic Purposes is a branch of English for Specific Purposes; the latter is a discipline that draws on language, education and students' specialist areas of interest. EAP is used in educational settings and it is aimed at meeting the academic needs of learners of English for study purposes.

Enquiry-Based Learning (EBL): Inspires students to learn for themselves and it brings a research oriented approach to the topics of interest. It emphasizes group work and the use of the library, web and other information resources.

Gender: Gender describes the characteristics of men and women which are socially determined in contrast to those which are biologically determined. Sex is the biological differentiation between male and female while gender refers to the differentiation between masculinity and femininity; the latter is constructed through socialization, religion, education etc.

Globalization: Weapon of subordination dependency and marginalization which serves to further accentuate the socio-economic and technological divide between bipolar economic regions of the world.

Moodle: This is a learning management system through which knowledge is constructed by interaction with others and with learning materials. It uses web pages and employs the use of live chats, forums, wiki, glossary and workshop.

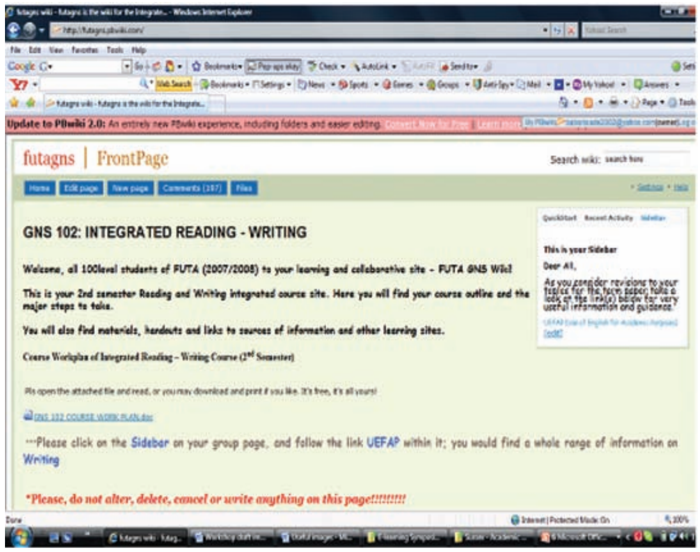
New Technologies: Refer to emerging computer-mediated communications and virtual reality technologies such as cable television online newspapers, the Internet,World-wide web,CD-ROMS etc.

Social Constructivist Pedagogy: Focuses on the linguistic environment where technology is used in the classroom. It encourages critical and analytic thinking. It is student centred as learning is built on the experiences of students and the construction of learning processes.

Wiki: A type of server software that enables users to create or alter the content of a web page.

APPENDIX A

Figure 5. Screenshot of front page of http://www.futagns.pbwiki.com



Chapter 44
The Influence of the Cultural and Linguistic Orientations of Sultan Qaboos University (SQU) Students on Their Responses to Literatures on the Internet

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ABSTRACT

Responding to the call for research to investigate the technological, linguistic and socio-cultural aspects pertaining to the use of the internet in the EFL classroom, this chapter seeks to report on the research that shows how Omani students studying at Sultan Qaboos University (SQU) view their interaction with the internet while responding to it as a means of communication and as a source of authentic materials and literatures written in English. The chapter provides insights into the socio-cultural views of these students towards the web: its relevance to their lives, personal and academic needs, cultural values, attributes and traditions. It also provides a review of literature that elucidates the challenges facing those who intend to use the internet in instruction and education and focuses on three main divides: the digital, the linguistic and the content.

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INTRODUCTION

Literacy can be viewed as a set of skills to communicate effectively, which is determined by social, economic, cultural, political and technological factors. These factors are all related and they work in conjunction with each other. Historically; however, technological advances have been a major determiner of what these literacy skills should be. For the most part, it is technological advances that have created and recreated the different notions of literacy, be it literacy in the mother tongue or literacy in a second or a foreign language.

At present and because of the massive technological advances that our world has been witnessing, we find ourselves living in an information age, and in a globalized world. National borders have extended beyond the realms of countries, and trade and financial markets have become more integrated via modern electronic communications. The internet and email have made the fast interchange of an inordinate amount of information possible for those who seek it. Contemporary research has shown that English, as the international lingua franca, is the language most present in the internet and most used as the formal means of communication among people of different languages. This has further underscored the importance of this language as a means of communication around the world and so it has recreated a new vision of literacy among many educational circles. Being able to communicate in English has become in a sense a window to the world.

Due to its many advantages, educational institutions have turned to the internet to facilitate learning processes for their students. Among the obvious advantages of the internet are the following: it is convenient and accessible; it is a repository of knowledge and culture (De Long, 1997); it provides excellent opportunities for communication and interchange of cultural experiences (Bennett, 1993); it also creates opportunities for engaging learners in activities that require cognitive and communicative functions and thus "scaffold" and nurture them (Vygotsky, 1986). In addition, the internet is a very powerful information resource that provides users with more opportunities to explore the "collective experience" of mankind (Kagan, 1981) and to get a better understanding of individual, local and global empirical processes (Lotman, 1992).

THE USE OF THE INTERNET IN THE LANGUAGE CLASSROOM

In the field of English language instruction, the scope of positive effects of the internet is very wide. Krauss (2000) claims, that the internet has made language learning practices more effective as it contains a wealth of literatures of different genres (articles, stories, etc.) on an enormously broad array of topics. The availability of such valuable resources has permitted increased meaningful practices in and outside the language classroom (Krauss, 2000). Internet features has provided English language learners with innovative mediating tools that empowered and motivated them to overcoming psychological and socio-cultural barriers. The internet has also provided them with a venue to integrate language skills and to interact in them (Demchenko, 1997).

Due to its massive potential to provide endless and meaningful opportunities for the enhancement of integrated language learning, many EFL and ESL teachers enthusiastically embraced the internet. They started to use it as a source of materials and information (March, 1995) that could help their students to enhance their linguistic and communicative skills (Ter-Minasova, 2000). Teachers also expected to exploit the internet with its "variety of human connection" (March, 1995) to provide their students with unique opportunities to learn outside the familiar context and to get a deeper understanding of other cultures and social groups (Tuzlukova, Eltayeb, 2008).

However, in spite of the many capabilities of the World Wide Web and "electronic literacies" (Warschauer, 1991), the use of the internet has given birth to some dilemmas. These dilemmas, namely "digital divide", "linguistic divide" and "content divide", present many problems in global and local socio-cultural contexts (Makarenko, Tuzlukova, Rozina, 2004). Due to the serious nature of these dilemmas, we shall focus on them in the coming few paragraphs, illustrating them from the cultural and linguistic perspectives of the English language learners in Oman.

The Digital Divide

Analyzing some educational paradigms in the global information environment, Demchenko (1997) claims that, due to various socio-economic and political reasons not all the countries stand the same pace in exciting developments of internet technologies. This point of view is shared by many other scholars. Kennedy (1993), for example, believes that some countries are moving more quickly towards innovation and the integration of new technologies while others are very slow in implementing them. Therefore, there is the problem of a "system crisis of development" (Coombs, 1968), and subsequently of a "digital divide" (Barnes, 2003, p.292; Gorbachuk, 2005). The challenge of a "digital divide" is made worse by "linguistic divide".

The Linguistic Divide

Linguistic pluralism is one of the basic features of the Internet (Jandt, 2002, p.145). As a medium of computer-mediated communication, the internet uses both language and technologies as tools for individual and societal development (Warshauer 2002). However, this function has been quite seriously challenged by the overwhelming role of the English language on the internet and the uneven representation of the other languages in its networked space. The linguistic divide or the problem of "digitally compatible" languages has become one of the evident concerns for many societies (Allwood, J., 2001, McEnery, Ostler, 2000).For example, Al-Aufi (2009) writes about some crucial challenges in presenting the Arabic language on the internet and adapting it to a technology based environment in sense of its functional viability and possible use in various computer supported applications

Even the English language itself is challenged by its new computer-mediated environment. Crystal (2005), for example, contends that the internet has given English new stylistic varieties, in particular, increasing its expressive range at the informal end of structures. As a result of its contact with other languages and cultures, English is now living its own unique life (Tuzlukova, Al-Mahrooqi, 2009), constructing new relationships, creating new forms and functions and acting as the language of the internet (Crystal, 2001). The evidence of this is the emergence of some new vocabulary, grammar structures, idioms, etc. that mushroom on the internet and cause limitations to the potential users with different levels of language proficiency.

The Content Divide

Another limitation for integrating the internet into the classroom is the content of materials/literatures posted in the World Wide Web. In accordance with the basic principles of internet design, operation and current structure, the information of the computer network is indirectly mediated by the provider (Ursul, 1975, 137). This information is sometimes incoherent to the particular ways of life of the users, their inner images, ideals, values and human personalities (Ter-Minasova, 2000; Hall, 2008) and sometimes does not satisfy their individual needs (Littlejohn, Windeatt, 1989). Moreover the "microcosms" of the local socio-cultural contexts, cultural and linguistic identities of each netter are often neglected by the providers because of the "global" character of the socio-cultural environment of the internet. Therefore, the influence of the culturally constructed artifacts (Vygotsky, 1978) on the individual perceptions of the content is underestimated.

Krauss (2000) contends that students will learn English more effectively when they study materials which are intellectually stimulating, relevant to their lives, and within or just beyond their current level of linguistic competence. Though the internet provides lots of materials/literatures on a wide array of topics, these materials, even if they are written from the perspective of the English language teaching, are sometimes socially and culturally inappropriate for further use in some local contexts (March 1995). Their themes can even offend the students sometimes (Tuzlukova, Eltayeb, 2008) and not bring any pedagogical benefit to them.

THE USE OF LITERATURES IN THE LANGAUGE CLASSROOM

Learning with literatures is not a new concept in English language pedagogy (Al-Mahrooqi and Sultana, 2007). Lazar (1993) states that that literature "provides meaningful and memorable contexts for processing and interpreting new language". About the multi- dimensional appeal of literature, John Lye (2003) remarks that literature engages the learners emotionally, morally and intellectually, using a wide array of means of communication including language, images, symbols, codes, stories.

Literature models various communicative strategies and provides English language learners with all kinds of communicative techniques used by speakers of English around the world. In this manner it can motivate, encourage and guide students of varied language and communicative competencies and achievements.

English literature provides valuable authentic materials that address many human issues that are shared in all cultures and hence can foster understanding of the many dimensions of the human experience as well as appreciation for their local cultures. Literature can help students build appreciation for the universal elements of human nature and conditions. It has the capacity to draw learners into it, giving them pleasure when engaged in transaction with literary texts. It also can teach learners to think critically as it encourages them to examine their own values and beliefs and to compare them with those of others. So, it teaches them how to think instead of what to think (Schafersman, 1991). Regarding this aspect of literature, Judith Langer (1990) states that while learners read literature they might go beyond the particular situation, associating with it their own experiences or the experiences of people they know. This opens new possibilities for finding alternative meanings, interpretations and changing points of view. In this way, the reading of literature, then, involves a great deal of critical thought. In addition, it encourages creativity, imagination and learner independence in traditional and internet-based situations.

The use of literatures nowadays is ubiquitous in the internet. This has extended the notion of text and created new interactive and versatile dimensions and contexts for it. While this ubiquity provides an inordinate amount of literary materials that can be used in the English classroom to create new opportunities for interaction and language learning, it has also posited some serious challenges for all the stakeholders involved in computer mediated instruction and communication.

Although a few studies have been conducted on the effects of culture on social behavior (Triandis, 1994) and responses to the content (materials/ literatures) of the technology (internet), the picture of the interrelationships between technology, culture and learning in diverse macro and micro socio-cultural contexts is still fragmented and incomplete, hence, requiring further investigation (Gaston, 1984, Lebedko, 2002).

INTERNET: LOOKING THROUGH TECHNOLOGICAL, LINGUISTIC AND SOCIO-CULTURAL LENSES

The Linguistic Situation in Oman: New Possibilities with Computer-Mediated Communication and Instruction

Nowadays the English language lives its own unique life in Oman, constructing new relationships within the country and with the rest of the world, creating new forms and functions in contact with other languages and cultures, and acting as an international language, one of the World Englishes (Kachru, 1990), a regional, social and cultural variety of an "emerging circle" (Kachru, 1986).

English in Oman operates a broad environment and has a number of unique functions. In addition to its role as a tool for individual self-expression and vibrant communications across a wide array of languages, cultures and types of discourse, English acts as an important mediator for the creation of new socio-cultural contexts and pedagogical orientations in teaching and learning. Since the advent of formal mass education in Oman, the importance of teaching the English language has been indisputable. In fact, issues concerning the role of the English language have been considered crucial in education and the society. Especially significant has been the potential of the English language to engage learners in various issues relating to science, information, technology and representing the country, its culture and cultural heritage, in the international context.

With regard to the school curriculum, the focus shifted from the foreign cultures of English-speaking countries to Omani cultural contexts, with some representation of other cultures from around the world. This has come as a result of globalization and a deeper understanding of the need to include contexts from the national culture of each learner of English in Oman to assert the validity of their values, traditions and experiences.

In the higher education context, where quite recently learners' personal experiences were not regarded as relevant by most of the teachers and therefore were absent from their curriculum (Al-Mahrooqi, 2007), the importance of representing culture of the learners is emphasized. Unfortunately the curriculum in many higher education institutions in Oman still consists- for the most part- of commercial textbooks that were not designed for the local context. In addition to using textbooks that are inappropriate to the Omani cultural contexts, some expatriate teachers, inadvertently sometimes, ignore the local culture in their teaching and adopt teaching methods and approaches that do not utilize the background knowledge of students.

Past studies show that the cultural and linguistic identities of students were disregarded in many literature classrooms in the nineties (Al-Mahrooqi, Taussif, 2008, Al-Mahrooqi, 2003). Due to their preoccupation with the analysis of the literary text as an entity independent of students, many literature teachers then treated students' cultural experiences as irrelevant to the text. In fact, they treated the students themselves as irrelevant entities, or as people harnessing no culture, no valid experiences, no morals or principles, no dilemmas and no emotions or aspirations.

Therefore, they did not involve their classes in any discussion that was relevant to their lives or that spoke to their needs and aspirations. Since most of the teachers were foreigners, they seemed oblivious to the social and cultural context in which the students were learning English. They failed to see that before they were language learners, they were members of a culture different from that of the English-speaking countries from whence they are and that they were studying English in a foreign context where communication with the English-speaking world was nonexistent outside the classroom, and thus learning English, was for the most part decontextualized, especially if it addressed American or British cultures.

In those literature classrooms, learning about the culture of the English-speaking world was implicit and was thought of as something that would ensue as a result of learning the language itself. Many students struggled with that attitude. Texts, literary or non-literary, contain gaps within themselves to be filled by the reader based on an assumption that the reader will possess the appropriate knowledge to render them whole in her mind or vision. But that is true only when the context is familiar to the reader and when the native speaker or writer is addressing another native speaker or writer. In the case of foreign language students, they have a different frame of reference caused by the fact that their cultures, and hence their experiences, are different from those depicted in the text. These differences can cause confusion and dilemmas to students when facing new concepts that do not ring any bells in their minds.

Although the methods of those literature teachers varied in one respect or the other, they all seemed to be based on the notion that the minds of their students were tabula raza, empty vessels and blank slates that needed to be filled. With what were these "empty vessels" to be filled? In their view, vocabulary, grammar structures, or endless interpretations of stories that were new and obscure to these students as they could not associate them with or relate them to their lives.

For those whose focus was vocabulary and grammar, the method of teaching was beginning the class by reading the work and explaining the new words as the reading went along. Many teachers did not engage these students in pre-reading discussions or discussions of even supposedly new or problematic words, although vocabulary was the focus of instruction and testing in many instances. Concern with grammar was relegated to the exam times where, combined with vocabulary testing, students had to construct grammatically correct sentences, using the new words they learned, or fill in blanks of some sort.

For teachers who valued interpretation, texts reigned supreme. They contained the meaning to be unearthed by the teacher. The students received those interpretations with awe and wonder. Those interpretations were unique and the only correct ones. The problem was that the students could not see their logic nor could they emulate them when interpreting new stories in the future. Therefore, students felt inadequate as language learners. Those students never had a chance to respond to literature nor even to demonstrate comprehension. There was minimal negotiation of meaning between text and its readers, or between readers and teachers except in very rare cases. Reading and writing were not really related except at exam times. There were teachers who required students to analyze some literary element in the stories but most teachers focused on recalling factual information, which many students handled by memorizing the details of the stories.

There was no respect for individuality or for the intellectual integrity of students in most of those literature classes. The needs and prior experiences of students did not matter. The teachers and the texts selected did not involve the students or interest them because they did not speak to their backgrounds, to whom they were as persons of a certain ethnicity, of a certain religion, of peculiar customs and traditions and of a culture more different than similar to that of the native English speaking world. Even when at times some of those students had personal reactions to what they read, they dismissed them as unimportant. The reason behind that is that they were never made to feel that their reactions and associations were worth anything and because the students feared that their reactions might be different from those interpretations imparted or held by the teachers. The result of the culturally inconsiderate teaching practices most of the literature teachers were using was that many students felt uneasy about literature classes as they were quite foreign to them.

These documented experiences bring to our awareness the importance of recognizing the importance and the validity of the prior experiences of the language learners and that these experiences could be used not only to facilitate communication and negotiation of meaning inside the classroom, but also to empower students and help them become autonomous learners when working with the literatures on the internet. By the same token, these experiences bring to us a realization that the explicit teaching of the foreign language culture is crucial to comprehension and effective communication with native speakers. Juxtaposing the native culture and the foreign language culture can help students become aware of the similarities and differences between the two, so misunderstandings could be eliminated.

Undoubtedly the EFL classroom presents many challenges to the students in Oman due to the peculiarities of the foreign context and due to the fact that the language and the culture the learners are studying are not practiced in their social milieu. These challenges can be tackled through the utilization of interactive and versatile features of the internet which can help students not only to develop their language competence and confidence via interacting in new social and cultural networked contexts, but also to benefit from the wealth of experiences, that is portrayed in the literatures of other cultures on the internet. To illustrate that, the following section will focus on how the English language learners at Sultan Qaboos University utilize the technology both directly (e.g. independent study, autonomous work) and indirectly (e.g. teaching/reading materials downloaded and adapted or adjusted by the teachers) and what teachers do to support this.

Integration of the Internet in the EFL Classroom in Higher Education Institutions in Oman

SQU Students' Use of the Internet: 2007 -2008

The students at Sultan Qaboos University have a unique opportunity to study in a multicultural environment. This environment practices a very comfortable balance of face-to-face communication with the teachers of various cultural/educational backgrounds and computer-mediated communication, i.e. communication situations, which are mediated by innovative technologies.

The university infrastructure is well adjusted to reflect and cater for essential communication needs. All SQU students have access to computers with internet connection, though the internet connection and the speed of the internet might be agonizingly slow sometimes. Most of the students who come from big cities or from suburban areas located near the capital, Muscat, have very good computer skills, which they acquired at high school. The students, who come from rural area, have quite low computer and internet literacy levels and do not know a lot about computer-mediated communication or learning. Therefore, these students have to work hard to learn computer basics as well as the basics of using the internet to do their major subjects and English language assignments.

The internet technologies have been incorporated into almost all the English language courses which are offered to the students of both English medium and Arabic medium specializations to facilitate and enhance the acquisition of various English language skills. The set of these skills is not limited to integrated language skills (e.g. reading, listening, speaking and writing), but also encompasses communicative skills and e-literacy. These skills are practiced in WebCT and Moodle learning environments, which host various on-line English language courses, assignments and links to the internet resources. Various choices of internet access provide the students with additional opportunities to retrieve and collect the information when reading literatures on the internet for preparing their reports. To exemplify this we would like to present the data of a mini study which was undertaken at SQU in 2007 - 2008.

The study explored some of the aspects of using internet in the English language classroom and independent reading of the students at the College of Arts and Social Sciences. This college offers Arabic-medium specializations and the students at the college are offered credit English language courses. The participants of the mini study were seventy one students (54 female students and 17 male students). They represented the cohort of the students who took English for Arts course in academic year 2007/2008 and agreed to participate in the study on the voluntary basis.

The main instrument of the mini study was an open-ended questionnaire. The items of the questionnaire were designed as to identify such aspects of the use of the internet by the students as internet accessibility, degree of comfort when using internet and computer technologies, degree of comfort when reading texts/literatures on the internet, purpose and length of using internet, problems when using internet and future perspectives for using internet. The secondary instrument was a face-to-face interview which triangulated the responses to the questionnaire.

When asked about the main internet access, the participants of the study named several locations on the university campus. Among them are numerous laboratories of self-access at the College of Arts and Social Sciences at SQU, computer laboratories in the complexes for female students and in the library of the university. While a significant percentage of the students in the research group (41%) spends from 2 to 4 hours a week on the internet, a smaller percentage (17% of all the participants) devote from 10 to 12 hours of their time to doing their assignments and reports with the help of the internet. 44% of all the students who participated in the survey reported that they use internet resources for their preparation for lectures and seminars and 38% use the internet for personal reasons. 8% of the students play various computer games on the internet and 8% of the students enhance their English language skills with the help of the internet.

Both male and female students reported that when they use the internet in responding to the literatures available on its multiple resources, they do not face too many technical difficulties nor do they face any difficulty with reading texts on the computer screen. Interestingly the majority of the students (about 70% of the respondents) consider themselves as being comfortable (34%) and very comfortable (35%) when working on the internet inside or outside their English language reading classes, though male students feel more comfortable than female students.

The participants of the mini study who reported the uncomfortable feelings described them as shyness when dealing with the computer, lack of communicative competence and confidence in managing computer-based assignments. Some of these students felt threatened by the internet, perceived accessing the internet as an extra load and reported lack of motivation to use the web. The main reason behind these uncomfortable feelings is the fact that they grew up in surroundings that were technologically impoverished (the effect of a digital divide that exists between rural and urban Oman).

The problems, as reported by the participants, are grounded not only in lack of necessary skills to master the technology, but teachers' lack of motivation and support. Those participants of the study who reported that they received clear explanations and guidance from the teachers on how to use the internet to practice and enhance their integrated language skills, tend to participate in internet-based activities more often than their counterparts who received less or no support. The guidance, which the students need, mainly focuses on how the students can benefit from the wealth of internet resources, literatures and materials that portray other languages and cultures as well as social and cultural networked contexts that are not familiar to them.

SQU Teachers' Practical Measures: 2007-2008

While conditions seem very conducive to the effective integration of technology into language learning in SQU, there still remains a challenge. This challenge lies in finding an effective and balanced approach that acknowledges the essential human element of the instructional process: the learners and the people who help them to learn (Jaaffar, 2002).

The encouragement and sustainability of the use of the internet by the students is not possible if the teachers are not involved in the innovative educational processes (Barnes, 2003, p.296) as major stakeholders. Among some practical measures undertaken by the English language teachers at Sultan Qaboos University to support the language learners is the use of the internet as a resource for designing assignments and developing in-house teaching materials. Doing so they aim to bring together the local culture and the international cultures (Carrell and Eisterhold, 1988), while promoting pride in students' own cultural identities. To make these materials/literatures more consistent with the cultural, linguistic and social needs of the students (Vygotsky, 1978, Day, 1994) and to create a stimulating educational environment (Yandt, 2001, Lustig, Koester, 1998), these teachers use a wide range of methods and approaches (Krauss, 2000) and undertake some practical measures.

The practical measures (e.g. on-going revisions of learning-related policies and requirements, assessment of learning needs, instructional design, content selection, adjustment, adaptation, etc.) primarily focus on the "modus operandi", i.e. on culture, defined by the Dutch anthropologist Hofstede (1984, 1986) as "mental programs" that are nourished by socio-cultural environments of the individuals, in which thy grow up and acquire their life experiences. For example, when making the decisions about the content of the materials/literatures retrieved from the internet and on the way in which they are adjusted, the most influential beliefs among the teachers are related to the need to personalize, individualize and address each student's needs (mostly the needs of female students): to integrate examples from students' own experiences and culture: to increase motivation with the help of cutting edge technologies, and to develop in-house materials with content that exemplifies students' own experience and culture and matches the educational environment and content of learning. In the Omani context, these beliefs are very important as they address and respond to very important linguistic, communicative and content related concerns that both students and teachers (most of whom are expatriate) have about the culture-appropriateness of the materials.

To be successful in the efforts to produce culturally appropriate materials that integrate modern technology, ensure successful use of the internet and get a positive response from the students, teachers target the individualistic learning styles of the students, their interests, needs, linguistic and cultural backgrounds (Aebersol, Field, 1997). This approach involves creating a familiar non-threatening atmosphere and matching the content with the learning environment, and corresponds with the need for culturally appropriate material in the socio-cultural context of Oman, which can be met by using English-medium literatures as available on the internet.

FUTURE TRENDS

The excellent features of the internet such as its versatility, interactivity and composition will undoubtedly continue to influence the teaching of languages for years to come. The nature of this influence will be dependent upon technological advances as well as the rate of success achieved by language learners in different socio-cultural environments. In addition, the beliefs of the educators, policy makers and students will also be influential factors in this regard.

The essential role of literature in language instruction will remain indispensable especially with its existence in the world-wide web and new computer mediated contexts of language learning. It is the ability of literature to engage learners affectively, cognitively, linguistically and socially that will ensure its sustainability in the language classroom. Genres like novels, stories and drama, will always present learners in new virtual environments with a microcosm of the real world in which characters, setting, and actions appear to be a replication of the real world and appeal to each individual learner's cultural and linguistic needs.

CONCLUSION

Modern internet-based technologies play an important role in shaping concepts of literacy and education around the world. Since English has become the lingua franca of computer mediated communication, the internet has given the English language a new life and has become its repository. Therefore, the internet has a vast potential to foster English language learning. Its content can be utilized in the most effective way in the English language classroom if its social and cultural aspects fit the cultural and linguistic orientations of the students as main stakeholders in the educational process.

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KEY TERMS AND DEFINITIONS

Content Divide: Refers to the gap between different types of texts on the internet with regard to their socio-cultural appropriateness, linguistic and contextual clarity that concerns differences in the profiles of individuals and groups that use the texts provided by the new information technologies and the internet.

Digital Divide: Refers to the gap between individuals, groups and geographic areas at different socio-cultural and socio-economic levels with regard to their opportunities to access and use information and communication infrastructures, technologies and services for a wide array of activities.

EFL Classroom: Refers to the educational situation of teaching/learning English as a foreign language.

ESL Classroom: Refers to the educational situation of teaching/learning English as a second language.

Linguistic Divide: Refers to the gap between different languages with regard to their functional viability and representation on the internet.

Literacy: Refers to a set of skills determined by social, economic, cultural, political and technological factors.

Chapter 45
Attitudes to Online Reading and Web-Based Instructions in Developing Societies

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ABSTRACT

This chapter reports a research that attempted to identify attitudes and responses to online reading and learning among people in a typical developing context. A number of Nigerians who, by virtue of work and study, have to use the Internet were selected and studied in this regard. The research revealed limited use of the Internet among these people. Also, the research revealed that there was a tendency among the respondents to view browsing as too technically difficult. These responses are linked to the fact that many developing societies, unlike the advanced world, may not yet be socially adaptable to computer mediated communication due to social attitudes and low competence in computer use. The chapter therefore recommends information literacy training in schools and a more cautious approach to the introduction of ICT solutions.

INTRODUCTION

Access to information is an essential ingredient of development in the 21st century. We live in an age which is often appropriately referred to as the information age due primarily to the sheer volume of information available and the means available to rapidly retrieve them, so much so that the advanced economies of today are essentially based on efficient generation, management, dissemination, and utilization of information.

Looking at things from a global perspective, it is clear that there is a great deal of imbalance in the extent to which societies are able to key into the information systems of the world. While the advanced societies race ahead in the quest for more information generation, dissemination and utilization, the developing world struggles with crippling ignorance and its serious implications. In the last century, a Canadian Education Secretary was quoted

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as saying that "the haves and the have-nots in the next century will be defined by their degree of access to information". (Maiyanga & Macaulay, 1998, p.80) He has been proved right.

Reasons for the situation in the developing world include the paucity of information dissemination infrastructure, poverty, low literacy rates and so on. Yet, in today's world, one of the general goals and expectations of peoples (whether at national or international levels) is the quest for a knowledge based society. This involves enabling people to access the information required for the enhancement of their lives without institutional or practical inhibitions.

Online reading and Web based instruction are among the current fads in education, which have attended the phenomenal growth in information and communication technology. It is inevitable that educational systems and mass communication systems would take advantage of the available information and the attendant information infrastructure. It is in this wise that online reading and Web based instruction have emerged as central aspects of education and mass communication in the advanced world.

Learners' attitudes and responses have been identified as crucial factors in the effectiveness of instructional systems and general information dissemination, and they deserve in-depth empirical study to provide education and public information practitioners with relevant data to help in determining how best to serve learners' interest with what the information age makes available. This is particularly pertinent in view of the possibilities of the existence of problematic cultural, linguistic and experiential peculiarities. Yet even in spite of the limited Information and Communication Technology (ICT) capacity in developing societies, educational institutions (especially) are rushing into a system that involves near exclusive reliance on ICT. This situation may actually amount to a blind rush if appropriate studies are not carried out. Examples known to this writer are the cases of the National Open University of Nigeria and Nigerian examination bodies.

This researcher carried out a micro study (in Nigeria), using selected individuals. They were selected purposively to, as much as possible; reflect gender, age and social distribution in Nigeria. The respondents were (via a questionnaire) requested to supply information about aspects of their attitudes such as general preferences between conventional learning and ICT based learning, perceived effectiveness of ICT media, problems with information extraction, linguistic inhibitions, incompetence in handling ICT hardware and so on. The results were analyzed to reflect diversity of responses in line with relevant variables, using appropriate statistical procedure. The objective was to answer some research questions that are itemized as follows:

- To what extent do the respondents use the Internet for reading and learning activities?
- What is the general preference of the respondents from the options of the Internet and traditional print sources?
- To what extent do the factors of language and culture affect the use of the Internet?
- What are the impacts, if any, of the variables of age, education, gender, and technical preparedness on the respondents' use of the Internet?
- What are the implications of the above for education and communication?

Details of the procedure adopted in data gathering and data analyses are described in the relevant section of the chapter.

Prior to the above however, the researcher carried out a review of previous studies of Web based learning (WBL), the relationship between learners' attitudes to learning facilities and instructional outcomes, as well as relevant studies of the language factor in the use of ICT facilities. Also, reviews of relevant studies of cultural and linguistic issues impinging upon ICT applications were made. These were directed towards establishing the relevance of the research. From all the above, conclusions and recommendations were drawn regarding how to or how not to use ICT facilities in developing societies having the same sociological and linguistic characteristics as the research population.

In this chapter, the use of the term 'Web based learning' (WBL) is based on the current convention of using the term in relation to learning activities that are either wholly or partially Internet based. Also, the use of the term 'Internet' in this chapter may not necessarily reflect the technical distinction between the Internet and the Web. This is because all Web based activities are invariably based on the Internet (though not all Internet activities are related to the Web).There are however no discussions on non Web Internet activities. Therefore, the terms will be used interchangeably as is often the case in the relevant literature. Similarly, the word 'Online' may occur as a reference to all Internet based materials.

BACKGROUND

In this section an overview of the general trends in WBL as a phenomenon is made. Also, an attempt is made to review scholarly submissions regarding attitudes to online reading and learning, especially with regard to the cultural and linguistic issues involved.

Online Reading and Web Based Learning in Perspective

Although learning via electronic means has been in existence for as long as electronic communication has existed, electronic reading and learning as they are known today probably really took off in 1960 when the Programmed Logic for Automated Teaching Operations (PLATO) was developed in the University of Illinois Urbana, USA (Online Learning History, 2008). Subsequently other notable developments took place in this regard mainly in the USA. But perhaps the most outstanding development was the emergence of the Internet

The Internet was an outcome of a United States Defense Department funded research into computer networking. (Ford, 1995) This provided the basis for computer systems in different locations to be connected in such a way that they could communicate and share files. It rapidly became very popular because of the access to a global audience which it offered. Although it was initially used by government and the academia, it offered open ended multimedia systems with the attendant advantage of being able to carry non-text elements like audio and visual content. Also, the possibility of making every one a potential writer and publisher was a huge appeal. This immediately gave this medium an advantage over traditional media, turning it into a fertile ground for reading and learning.

The effective use of the Internet in this way was enhanced by the advent of the World Wide Web in 1989. Ford (1995) defines the Web as "a dynamic body of information distributed around the world by computers communicating via standard protocols" (p.2). The wide use of the Web was enhanced by the development of a browser program at the Center for Super Computing Application, University of Illinois, USA in 1993 (Ford, 1995). The Web, according to the scholar, became so popular that it soon transcended the narrow confines of government and the academia and became a commercial media.

The use of the Internet in education has rapidly expanded since the advent of the Web, so much so that today there are wholly online educational institutions that even run degree programs (albeit with varying levels of credibility). Also, general online reading in some advanced societies has reached dimensions that now challenge conventional media.

The educational values of the Internet are highlighted by Ogwu & Iyiama (2006). They point out that it offers opportunities for connecting dispersed groups of learners, provides opportunities for "accessible and flexible" mode of study to enhance lifelong learning and offers opportunities for entrepreneurial schools to increase their share of the educational market through the provision of fully online learning. Also, online learning offers more opportunities for introducing new courses and offers employers and employees opportunities for non-disruptive training.

Ebem and Iyiama (2005) also highlight some outstanding benefits of online reading and learning. They cite a United States defense Department study that proves the learning benefits of multimedia services offered on the Web. The said study revealed that people generally retain 20% of what they hear but retain 75% of whatever involves hearing, seeing and performing tasks. This is what multimedia programs involve. In addition to this, the study proved that only a quarter of the time needed in traditional learning is required when online multimedia facilities are used. This results into 50% higher competency level. These are some of the benefits the advanced world has enjoyed for some time now.

In many developing societies, especially Africa, the situation as earlier pointed out, is different. By December 2008, only 5.6% of the entire population had access to the Internet. This figure represented 3.4% of Internet users in the world (Internet Usage Statistics for Africa, 2009). According to this same source, only nine African countries had Internet penetration rate of above 10%. In Nigeria, the country with the largest population in Africa, only 6.8% of the population had access to the Internet. In South Africa, the country with the biggest economy in Africa, 9.4% of the people had access to the Internet.

One must point out though that these figures are sometimes based on the number of people who have direct access to the Internet. In Africa however, having direct access to the Internet may not necessarily be the only way people use the net. Many people do carry out Internet based activities through other people who have the direct access. The fact however still remains that Africa definitely is behind the rest of the world in this sphere. As recently as about ten years ago, Africa was the only continent where almost no telecommunication equipment was manufactured (Aba & Okayi, 2006). The digital divide (as this information technology imbalance is often tagged) remains with us. The information technology poverty, one must stress, applies to many developing societies. Africa just happens to be the most extreme case.

The situation is however improving rapidly across the developing world. Even some African nations such as Seychelles, Mauritius and Tunisia, are beginning to have appreciable Internet penetration rates. Between 2000 and 2008, the total figure of Africans with Internet access rose from 4,514,400 to54, 171,500.(Internet Usage Statistics for Africa, 2009) This is a huge increase which is in part due to the steep rise in the number of telecommunication companies providing assorted services on the continent including Internet services via modems and phones. The corresponding improvements in telecommunication infrastructure have also helped.

In Nigeria, the country used as case study in this research, the culture of ICT compliance began in 1985 when a company named Link Serve Nigeria Ltd started providing Internet services on a limited scale. They expanded their services and began to provide full commercial services with full IP (International Protocol) connection in 1997 (Ezeorah & Mbam 2006). ICT applications are now gaining ground in virtually all spheres of life. Today, admission applications, external examination applications, job applications, passport applications, fees payments and so on, are now done online. Indeed, towards the end of 2008, the Federal Government issued a directive to all its agencies to adopt online payments for all activities.

However, access to the Internet is still very expensive in Nigeria. Iyiama & Okoye (2006) observe that it cost about N45, 000 (about $300) each month for a cyber café to run 32kbps bandwidth which can scarcely support six users. This often means that customers pay roughly half a dollar for thirty minutes online. This is rather high for a poverty stricken citizenry.

On the reading and learning front, it is important to note that the idea of browsing the Web for information is no longer as strange as it was some years ago. At the tertiary level of education, many campus cyber cafes have been established through funding by the Education Trust Fund (ETF) and largesse from NGOs such as Open Society Initiatives for West Africa (OSIWA) (Aba & Okayi, 2006). All these were meant to enhance the ICT culture. Indeed the National Universities Commission now has a Virtual Library Scheme which started in 2002-2003 in some universities and is now being expanded to other institutions. (Aba & Okayi, 2006) The objective of this, according to these scholars, was to provide a computer based connection between all the libraries in the countries to create an environment whereby scholars could "search, collect, organize, store and distribute cultural historical and scientific information, whether it is text, visual images or sound format" (p.35)

It seems however that the most outstanding ICT based educational project in Nigeria so far is the National Open University of Nigeria (NOUN) which was established in 2002. As a learning establishment based on distance learning, the Institution sought to harness available technological opportunities to carry out its mandate in view of the fact that in the contemporary sense, open and distance learning is technologically based with such facilities as online libraries, e-books, and technologically based trainer and learner interaction, education impact measurement as well as ICT mediated exam systems. Today, the admission processes, fees payment, and information dissemination relating to the institution are all online. Most importantly, the institution has a virtual library network which learners are supposed to rely extensively on for their studies.

All the above ICT based schemes require that substantial proportions of members of the public have the prerequisite skills and willingness to take advantage of the technological facilities. There is however a paucity of knowledge in Nigeria regarding the true position of thing as far as people's affinity with technology and their willingness to use it is concerned. There could be some attitudinal, cultural and linguistic issues involved here. Hard facts regarding these are scarcely available in many developing societies. These are issues this chapter explores.

Attitudes to Online Reading and Web Based Learning

One of the issues that have attracted the attention of scholars regarding online reading and learning is the issue of learners' attitude. This of course is hinged to the obvious fact that to benefit from any learning activity, it is essential for the learners to view the means of learning positively. In the advanced world where electronic based distance learning has become very prominent, quite a lot has been written in this regard. The general perspective in these societies appears to be that people generally view WBL in positive light. They tend to view it as a golden educational opportunity for many people who for one reason or the other may be unable to partake in traditional forms of education. (Chin, Chang, & Bauer, 2000) In addition to this, it is generally believed that this form of learning has a number of advantages over traditional forms of learning. Kruse (2004) observes that it enables learners to learn at their own pace because the content (text and non text) are available anywhere and anytime, even from the comfort of people's homes. Reading and learning online also does not burden the learner with physical material such as books. Internet materials also have the advantage of being easy to update. These and other advantages have created a generally favourable attitude to WBL and have been responsible for its rapid and phenomenal growth. A number of negative views have also been raised by scholars.

Kruse (2004) has observed that the absence of human touch, an invaluable aspect of learning activities, is a concern for many people. In this regard, Chin et al (2000) point out that feelings of isolation have been known to exist among some learners. This same matter is raised in Smith (2005). She cites a study that actually claims that this factor causes many learners to abandon their studies. It is in this regard that she goes on to identify practical strategies for "rehumanising the e-learning space." Ogwu (2006) also raises the issue of inadequate feed backs, pointing out that "there is a frequent lack of feed backs in e-learning environments. Almost all feed backs are related to question and answer situations…" (p.117)

Other scholars have raised other concerns beside these. Hutchinson and Sawyer (2000) raise the issue of plagiarism. They point out that low overhead cost has encouraged the online publication of so many materials that may only attract very few readers thereby creating a situation in which so many of such materials are now available, making the task of identifying plagiarism a bit tricky. This remains a concern in spite of the fact that Internet technology offers ways of catching idea thieves.

On a general note, one of the prominent concerns is the openness of the Internet to junk. In this regard Yadav (2006) has observed that the internet is "a road without any rules or a city without law and order" (p.146). Obviously, on the net, a lot of harm awaits a learner that is not properly guided. Iyiama & Okoye (2006) point out that in Nigeria, one of the main worries of people about the Internet is the fact that it can have a "corrupting influence" over their children.

These negative views have not limited the spread of online learning in view of the fact that the benefits are so huge. As stated earlier, even developing societies have been embracing this phenomenon for some time now. But researches in the developed world regarding responses to online learning among diverse cultural groups have revealed interesting results. This is why a study of attitudes to online reading and learning in the developing world is important at this point.

Culturally Based Divergences in Responses and Attitudes to Online Reading and WBL

Chin et al (2000) in a study that compares the attitudes of subjects from Asian background with those of subjects from Anglo-Saxon background, reveal that while 97% of both categories of subjects appreciate the usefulness of the Web for learning, more of those from the less developed Asian backgrounds viewed WBL as innovation while a significantly lower proportion of those from the Anglo-Saxon world viewed WBL as innovation. More significantly, a considerably higher percentage of subjects from Asian countries reported lower confidence in using the Web for learning.

These findings are of crucial importance as they could signal important variations in how people of different backgrounds can benefit from WBL. Lower user confidence and tendency NOT to see Internet learning as a regular learning tool (but as innovation) may affect the extent to which people (especially the technologically conservative) turn to online learning. One must point out that the categorization of subject in the said research was based on Hofstede's model of cultural diversity which would make the subjects of Asian extraction representatives of other groups including Africans.

The impact of cultural, social and linguistic experiences is also raised in Hughes, (2006) in his proposals regarding a new model of online information use. The scholar agues that there is a need to "blend cultural and linguistic influences into the interplay of thought, feelings and actions in information use to complement previous models of reflective internet searching and reflective information use"

Not all studies of learner's attitudes to WBL are based on cultural factors. Njagi, Smith & Isbell (2003) carried out a study in which a class of students was divided into two groups. One group was taught using conventional book-based instruction while the other group was instructed using Web based resources. The research revealed no significant difference in the students' attitude towards the course. Also, no difference was recorded in attitude to computers on account of the two different instructional approaches. However, the males of both groups were found to be favorably disposed toward computer technology than the females. The ownership of a computer and access to the Internet were also found to affect the attitude of people to online learning. The same was true of the time individuals spent on the Internet. Most importantly computer literacy was discovered to be a potent attitude determiner, so much so that the scholars recommend technological literacy courses for those that would be involved in e-learning.

In view of the fact that this research is based on responses in a second language situation and in view of the fact that linguistic issues have been raised in these discussions, it may be necessary to take a cursory look at the linguistic factor in responses and attitudes to WBL.

The Language Factor in Attitudes and Responses to Online Reading and WBL

Obviously the extent to which readers understand what they are reading on the web can go along way in forming attitudes, especially with regard to second language readers of materials from the first language world. Stackhnevich (2002) provides a rich overview of a number of studies in the area of how linguistic factors impinge on the use of materials on the web. Her work forms the basis of insights provided into this area.

According to Stakhnevich (2002) many scholars including Clark & Paivio (1997), Chun & Prass, (1996), Mayer, (1997) have variously studied the effect that web materials have on text comprehension and discovered that the effect is generally positive. This is principally due to the fact that information presented in several modes such as text along with sound, pictures, animations or video usually enhances vocabulary acquisition. Going by this, responses to online reading and WBL should be positive on account of better comprehension. It must be said however that this view of things is not universal. Stakhnevich (2002) attests to this, citing a number of studies that appear to claim that there is no way that computer can improve reading comprehension. These works, cited in Stakhnevich (2002) include Danato & Coen (1987), Davis et al (1997) and Xiufeng et al (1998). In conclusion Stahnevich (2002) points out that in this area "research so far has yielded somewhat conflicting results, especially when multimedia was directly compared with traditional print medium". Stakhnevich's own conclusion from her own research was that online reading enhances reading comprehension among second language readers regardless of levels of proficiency. This obviously does not mean that all such readers read at the same level of comprehension, it simply means that all readers can be helped to read better, from the poor readers to the good readers. This of course has a lot to do with multimedia enhancements that often go with web material.

It must be said however that not all web materials come with multimedia features. Indeed, many of the materials that learners usually access online come in plain text. One wonders whether such text will present readers with any advantages or disadvantages. In this regard, the research that forms the basis of this chapter investigates, among other things, learners' views about the language of Internet materials they use.

Models of Online Information Use

The ultimate purpose of this chapter is to provide a clear position regarding the educational and communicative implications of attitudes to OR and WBL. In view of the fact that these things are often woven around specific models and structures, it is perhaps necessary to consider some of the existing models in order to locate a framework for the recommendations of this chapter.

Hughes (2006) presents a "new" model of online information use, citing a number of previous models as points of reference. From his article, one is able to gain insight into these models. It is the believe of this writer that these models are essentially premised on the same principles, such that the differences amount to the outcome of mere academic exercises involving the reconfiguration and restructuring of existing notions without significant new contributions. This not withstanding, a cursory look at some of these models may be necessary.

According to Hughes (2006), there are several models of information behaviour, information literacy, and reflective Internet or online information use; such as those of Wilson, Kulthau, Foster, Bruce, Alderson, Hughes et al el and so on. The Wilson model, for example, identifies a number of elements that are pivotal to online information use. These include: information uses, information needs, information seeking behavior, and their context as well as cultural influences which are identifiable according to what is referred to as "intervening variables". Kulthau's model, according to Hughes (2006), focuses more on the user. It emphasizes the holistic interplay between behavioral, cognitive and affective responses in information seeking and how it affects all aspects of communication. One can immediately see that these two models simply amount to different ways of saying the same thing. What Wilson referred to as "information seeking behavior" is the same as Kulthau's "behavioral responses". Also, context and cultural influence basically mean affective responses.

In this same way other models appear to recycle the same issue needlessly. However, this writer finds a particular one rather instructive. This model is called *Hughes et al reflective online information use model.* According to Hughes (2006), this model frames online information use within the structure of four levels: *Plan, Act, Record and Reflect*

Plan refers the stage at which the user investigates online resources and plans how to use them to search for information. It is a preparatory stage during which the user determines search strategies. *Act* refers to the stage at which the user engages with information process according to predetermined strategies. *Record* refers to information control in the form of measure aimed at trapping information by saving, book marking, mailing, or printing information found during the *Act* stage. *Record* is the level at which the user is supposed to critique the information and construct new knowledge and use the information objectively, creatively and ethically.

This appears to be a fairly neat and practical model, and it takes care of issues that are of relevance to this chapter. This writer intends to adopt the model in making necessary recommendations.

METHODOLOGY

As previously stated, the objective of this work was to investigate attitude issues relating to online reading and learning in a typical developing society where the use of the relevant technologies may not be as developed as in the advanced world. The technological underdevelopment in this context may be seen both in terms of the infrastructural inadequacies and individuals' inability to key into information technology systems due to attitudinal, skill and material limitations.

In this regard, Nigeria is simply viewed as a microcosm of these societies, and this micro study was carried out using a selected sample of 100 Nigerians. The statistics earlier provided, prove the fact that the use of the Internet is yet to become a familiar aspect of daily living for many Nigerian. However, some people who are obliged to use the Internet as a result of the requirements of their work, their studies or both. Some of these people are being made to rely on the Internet despite the fact that adequate preparations are not usually made. The sample for this research was selected from among such people.

The sample consisted of 60 learners registered with the National Open University of Nigeria and 40 academic working in two Nigerian tertiary institutions (Kogi State University, Anyigba and Kogi State Polytechnic, Lokoja). There were 65 males and 35 females. 57 respondents were above 40 years while 43 were below 40.There were 47 respondents with university degree (or equivalent) and above while 53 respondents had lower educational qualifications. It is the believe of this researcher that responses of the selected individuals may, to a reasonable extent, be a good representation of nationwide trends among those who have to use the Web, and by extension provide insights that may be of value to other scholars in similar developing societies.

The researcher employed a twelve item researcher designed questionnaire, requesting such personal information as respondents' age, education and gender. Also, the questionnaire requested information about respondents' computer literacy levels and the possession of personal computers. The questionnaire also requested information about the frequency of the respondents' use of the Internet. This was measured on a three point scale of '*often, occasionally and never.'* Their views regarding the technical aspects of internet searches as well as their views regarding the language of Internet materials were based on questions asking if they found the technicalities of browsing and the language of web materials difficult. This was measured on a three point scale of '*very true, true and not true*.' Also, the questionnaire requested responses concerning the respondents' preference between Web-based materials and more traditional print sources. This was measured on a three point scale of '*very useful, useful, and not useful*.'

The analyses of the responses were tailored towards answering the earlier stated research questions. Also, in order to find out the impact of relevant variables on the responses, seven (7) Null hypotheses were formulated and tested according to appropriate statistical procedure. The hypotheses involving two variables each were tested with t-test statistics while chi-square statistics was used for those with three variables each. The hypotheses in question are listed in the section on result presentation.

RESULTS

The results of the statistical analyses are presented below. The first set of figures represents the general responses of the research subjects; while the second set represent the results of the hypotheses testing. The first set of data is based on simple percentage.

From the above table, a number of facts are obvious.

- It is clear that in spite of the imperative of Internet use for reading and learning activities of the selected respondents, and in spite of the fact that they, unlike most other Nigerians, are positioned to gain access to the Internet if they so wish, they engage in searching the internet only occasionally.
- Although most of the respondents attest to the usefulness of both print and online sources, the number of respondents that consider the Internet to be '*very useful'* for reading and learning is smaller than those that view print sources in the same way.
- A combination of result in column one and two of row four reveals that in all, 59% of the respondents felt that browsing was technically difficult. (A hypothesis was formulated to test whether computer literacy

Table 1. Percentage distribution of responses

<table>
<tr><th></th><th>Always</th><th>Occ.</th><th colspan="2">Never</th></tr>
<tr><td>Regularity of use of the internet for reading and learning</td><td>28%</td><td>64%</td><td colspan="2">8%</td></tr>
<tr><td></td><td>Very useful</td><td>Useful</td><td colspan="2">Not Useful</td></tr>
<tr><td>Respondents' ratings of the usefulness of the internet</td><td>60%</td><td>40%</td><td colspan="2">O%</td></tr>
<tr><td>Respondents' ratings of the usefulness of print sources</td><td>75%</td><td>25%</td><td colspan="2">0%</td></tr>
<tr><td></td><td>Very True</td><td>True</td><td colspan="2">Not True</td></tr>
<tr><td colspan="2">Responses to statement that browsing was too technically demanding.</td><td>18%</td><td>41%</td><td>41%</td></tr>
<tr><td colspan="2">Responses to statement that the language of web materials was difficult</td><td>5%</td><td>34%</td><td>61%</td></tr>
</table>

had anything to do with this. The result is displayed later.)

- Most of the respondents did not feel that the language of Internet materials was difficult.

Hypotheses Testing

To test the impact of relevant variables on the responses tabulated above, seven (7) null hypotheses were formulated and tested in accordance with earlier stated statistical procedures. The hypotheses tested and the results obtained are as follows. Hypotheses one, four, five, six and seven were subjected to t-test while hypotheses two and three were tested with Chi- square statistics. Each of the hypotheses is stated and followed by a table summarizing the relevant data and the decision.

H1. The age of the respondents' does not significantly influence the extent to which they use the Internet for reading and learning

H2. The respondents' level of computer literacy does not significantly influence the extent to which they use the Internet for reading and learning. (Note that for Table 3,*1,2,3* stand for *Often, Occasionally and Never* respectively)

H3. The respondents' level of computer literacy does not significantly influence their views regarding the technicalities of browsing on the Internet. (*Note that for*Table 4,*1, 2, 3* stands for *Very True, True, Not true* respectively)

H4. The respondents' level of education does not significantly affect their views regarding the language of Internet materials.

H5. The possession of a personal computer (PC) does not significantly affect the extent to which the respondents' use of the Internet for reading and learning.

H6. The possession of a PC does not significantly influence the respondents' view regarding the technicalities of browsing the Internet.

Table 2.

<table>
<tr><th>Variable</th><th>N</th><th>X</th><th>S²</th><th>DF</th><th>t-cal</th><th>t-crit.</th><th>Decision</th></tr>
<tr><td>Below 40</td><td>57</td><td>19</td><td>189</td><td rowspan="2">0.05</td><td rowspan="2">0.3288</td><td rowspan="2">2.132</td><td rowspan="2">Accepted</td></tr>
<tr><td>Above 40</td><td>43</td><td>14.33</td><td>214.4767</td></tr>
</table>

Table 3.

	1	2	3	Total	t-cal	t-crit	Decision
Very Competent	10	3	1	14	17.59	9.49	Rejected
Competent	17	44	4	65			
Not Competent	2	16	3	21			
Total	29	63	8	100			

Table 4.

	1	2	3	Total	t-cal	t-crit	Decision
Very Competent	3	3	8	14	5.27	9.49	Accepted
Competent	11	26	28	65			
Not Competent	4	12	5	21			
Total	18	41	41	100			

H7. The gender of the respondents does not significantly influence the extent to which they use the Internet for reading and learning.

A look at the hypotheses and the test results shows that all but one of the tested hypotheses is accepted. These have the following implications.

- The occasional use of the Internet for reading and learning (shown on table 1) is characteristic of the two age groups identified for this research. There is no difference on the basis of age.
- The level of computer literacy or efficiency in handling the computer however affects the extent to which the respondents use the Internet. The frequency distribution reveals that the more competent respondents are more likely to use the Internet than the less competent ones. However, both groups felt that browsing the Internet was too technically difficult.
- Also the earlier stated position of the respondents that the language of Internet materials was not difficult did not vary even according to level of education as revealed in Table 5.
- Even the general trend to browse on the Internet only occasionally proved not to be a function of the possession of a PC. This is also the case with the view that browsing was technically difficult.
- The tendency to browse only occasionally also proved not to be gender related as shown on Table 8.

Table 5.

Variable	N	X	S²	DF	t-cal	t-cal	Decision
Degree/HND & Above	47	15.6667	282.3318	0.05	0.1932	2.132	Accepted
Below Degree/HND	53	17.6667	146.3316				

Table 6.

Variable	N	X	S²	DF	t-cal.	t-crit.	Decision
Own PC	56	14.6667	142.33	0.05	0.3409	2.132	Accepted
Do Not Own PC	44	18.6667	408.3315				

Table 7.

Variable	N	X	S²	DF	t-cal	t-crit	Decision
Own PC	56	14.6667	20.3319	0.05	0.6112	2.132	Accepted
Do Not Own Pc	44	18.6667	65.3316				

DISCUSSIONS

60% of the respondents used in this research are students of the National Open University of Nigeria who by the very nature of their school were supposed to be always using the Internet for learning, especially with regard to the use of their Institution's virtual library. The results of this research (which show occasional use of online facilities regardless of age, gender and PC ownership) could indicate a measure of failure in this regard. The modern requirement of information gathering via the Web is yet to catch on, even among those who are meant to rely almost exclusively on it. The academics involved in this study are also not exempt from this situation.

Of course, this is not surprising in view of the fact that modern ICT facilities are just beginning spread to some parts of the developing world including Nigeria. Also, it is not impossible that the observed and even well documented tendency among Africans to prefer oral communication to written communication (a trend that has bastardized the reading culture in many sub Saharan societies) may be taking its toll on attempts to introduce the people to a reading based study system that has minimal chances for students/instructor oral communication. From the experience of this researcher, it is often not very easy to get many students to carry out the required level of personal independent reading even in conventional school systems. This, the researcher believes, may be connected to the claim that African societies are ontologically oral as opposed to the literary cultures of Europe. The more technically demanding nature of online reading may simply be complicating this situation.

In this wise, one must draw attention to the fact that the respondents in this research (regardless of level of competence in computer use or the possession of a PC) generally feel that browsing the Web is technically tedious. This may well be a function of the psychological predisposition towards preference for the much less complicated oral medium. One must also stress that this tendency to display relatively lower confidence

Table 8.

Variable	N	X	S²	DF	t-cal	t-crit	Decision
Male	65	21.6667	272.3312	0.05	0.9615	2.132	Accepted
Female	35	11.6667	160.3322				

in handling the technicalities of the Internet is not unique to the context of this research. As earlier stated, Chin et al (2000) reports a similar tendency among people of Asian origin who in their research were taken as representative of non- European peoples.

It is however much more plausible to view the problem in terms of the level of preparedness in what is now often referred to as information literacy. This is not simply another term for computer literacy. It refers to specific training on how to employ computing skills in obtaining and using information. This is already usually incorporated into academic programmes in many advanced societies. This researcher can confidently report that in most situations in Nigeria, all the training usually given in information gathering as part of study skills training is usually limited to the use of the library (that is; the conventional libraries).

The matter of general computer literacy remains very relevant though. The results of Hypothesis 2 (see Table 3) indicate that the most computer efficient respondents were more likely to read and learn via the Web. This agrees with the results of previous research works, even in advanced societies (Njagi et al 2003). Therefore, foisting a computer dependent system on a citizenry that is poorly prepared in this wise can be problematic. This, as well as the mater of information literacy, has been revealed in this research to be even more serious matters than the possession of a PC.

It is however heart warming to realize that respondents are aware that Internet materials can be very useful (though they still rate print sources a little higher), and that they do not find the materials available on the net linguistically alienating, especially in view of the fact that most of such materials are of foreign origin. The comprehension problem sometimes experienced by second language readers while reading text of foreign origin has been a concern for scholars for some time. The problem is usually either attributed to linguistic or experiential factors. (Onochie, 1989; Tswanya, 2005).The respondents in this research obviously do not view the text as problematic. The true position may however be confirmed only with reading comprehension tests.

Also it is encouraging knowing that there appears to be no limitations for women in this case as no gender based differences in propensity to use the Web among students and academics reflected in this study, contrary to the findings of Njagi et al (2003). This may however not be the case among the wider population. These positive dimensions however are still bases for looking forward to the near future of e-learning with hope.

These findings can also have implication for aspects of communication, especially in areas related to education such as, information dissemination within distance learning set-ups, communication between learner and instructor, between instructors, between administrative staff and instructors, between researchers, and so on. These can be affected by the situations reported in this research. It is the opinion of this researcher that the tendency to visit the Internet only occasionally, and the belief that cyber space is too technically involving applies also to these kinds of computer mediated communicative activities.

Some time ago, this researcher was amazed to discover that some of his colleagues in the academia did not have e-mail addresses when a need arose to send paper abstracts to conference organizers by e-mail. Also, a PhD holder known to this researcher once complained bitterly when he discovered that he had to constantly be on the Net to keep abreast of administrative decisions made in respect of his distance learning students. He expressed serious displeasure and accused the Open University authorities of assuming that everyone knew how to access the Internet. Although these instances appear merely anecdotal, one cannot ignore them in view of the findings of this research. In a world gravitating toward creating more and more space for virtual learning, where the sharing of information among experts and academics is principally carried out online, the attitude of people in Nigeria and some other similar developing societies must not be ignored. This is especially urgent as policy makers continue to foist more and more computer and Internet based 'solutions' on the people all in a bid to avoid the feeling of being left behind in the scheme of things in this century.

In this case also, it is significant to note that since the people appear to recognize the value of the Internet and do not appear to have problems with the language (contrary to the opinion of this scholar prior to this research) it is possible to build on the existing foundation.

RECOMMENDATIONS

These measures are therefore recommended in view of the findings of the research and the ensuing discussions.

- The connection between confidence in computer use and the use of the Internet facilities means that there has to be a general improvement in computer training before there can be meaningful improvement in the extent to which the benefits of the Internet in reading and learning can be harnessed by the society. Such training must be integrated so closely into the school system that it can erase psychological and cultural barriers to communication that transcend the simplicity of oral medium. One must point out however that the concentration of this research on the middle aged segment of the population probably may have projected a computer literacy situation that is much more dismal than the reality.
- Beyond the matter of general computer literacy, there is the need to integrate information literacy into the curricular of secondary schools and tertiary institutions. At the tertiary level especially, study skills courses must have information literacy components that is able to inculcate the technical and reflective aspects of online information use in line with the *Plan, Act Record* and *Reflec*t procedure of the Hughes et al reflective online information use model In this regard teacher education is very crucial. Teachers must be trained in information literacy so that they can directly or indirectly impart the culture of computer use.
- By and large, authorities are encouraged in light of these findings to realize that the practice of foisting ICT based policies on the people without ensuring that the people are either prepared or are being prepared to key into the new realities must be urgently moderated.

FUTURE RESEARCH

Improvement in general computer literacy and information literacy will help the people on the down side of the information divide to better take advantage of computer mediated communication systems. However it remains to be seen if there can be enough cultural accommodation in Sub Saharan Africa for the use of this type of communication in such a way that it can match what obtains in the advanced world. Trends in this regard should be given scientific and scholarly attention.

CONCLUSION

The major problems that emerged from this research are: the inadequate average propensity to use the web among those who normally would have to use it, the attitudinal matter of viewing the Internet as too technically involving (a symptom of low confidence in handling the technology) and the inevitable connection between extent of Internet use and competence in using the computer. The last point is particularly problematic in view of the fact that only 14% of the respondents claim to be *very* competent in the use of the computer, leading to a situation where only 8% use the Internet often. This suggests that the race by those in authority foist ICT compliance on people in developing society similar to the context of this research, must be moderated. Too many people who by the nature of their vocation or educational pursuits have to use the Net are being stranded due to inadequacy of prerequisite skills and attitudinal limitations. Conscious efforts as stated above must be put in place to solve these problems.

It must be said however that this research is limited by the small size of the sample, and its exclusion of younger people especially teenagers, whose perspectives (as tomorrows adults) would have been interesting.

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KEY TERMS AND DEFINITIONS

Computer Literacy: The ability of an individual to use a computer to meet the computing needs relevant to the individual.

Developing Societies: Societies that are characterized by relatively low level of economic and technological development.

Distance Learning: A learning situation in which the learner receives instruction via such facilities as post, radio, TV, internet and so on, with little or no direct teacher/learner contact.

Information Literacy: The ability to employ computing skills in obtaining, disseminating and using information.

Internet: An international system of connecting computers and computer networks, which forms the basis of other systems such as the World Wide Web.

Model: A framework designed as a blue print for achieving desired objectives. In the case of this chapter, it refers to blue prints of online information use.

Multimedia: Computing facilities that NOT only involve text but also involve additional features such as sound, pictures and video.

Online: Activities carried out on the Internet..

Web: A term used for the World Wide Web, which is a component or sub system of the Internet.

Chapter 46

Second Language Writing Instruction through Blended Learning:

Report on a Pilot Course at the University of Freiburg for Undergraduate Students of English

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ABSTRACT

This chapter presents the results of a blended learning course in writing instruction piloted at the University of Freiburg for undergraduate students of English. It provides a brief overview of recent research into online learning with discussion of the trend from e-learning to blended learning and discusses a selection of web-based technologies. This is followed by an outline of the syllabus with a focus on the technologies used. It concludes with a discussion of student feedback and evaluation of the course and the implications of these for the future integration of blended learning within the current teaching programme.

INTRODUCTION

The decision to pilot a blended learning course evolved out of ongoing research into e-learning, including the use of the university learning management system (LMS: CampusOnline) and the incorporation of other new media/web 2.0 applications into university language instruction, along with the need for more writing instruction at undergraduate level. After successful initial trials using elements of the LMS and various wikis within existing language courses it was decided that writing instruction might be a skills area in second language learning that could benefit from a blended learning (b-learning) environment. The course was intended as a flexible alternative to

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the current language practice courses we offer in the form of two hours per week throughout the semester in the traditional classroom. Before discussing aspects of the syllabus we designed we shall first give a brief overview of selected recent research into e-learning, taking a closer look at two recent case studies in a b-learning environment. Finally, we shall report on student feedback and evaluation, with particular reference to the social interaction aspect of discourse behaviour, and discuss the implications of these for the future implementation of b-learning courses within our current teaching programme.

SOME ISSUES IN E-LEARNING

Interest in e-learning in higher education has developed out of the need for greater flexibility for both learners and instructors regarding time and place of the learning environment; in this sense, e-learning may be seen as the newer generation of distance learning (Caladine, 2008) - often referred to as anywhere, anytime learning (Baumgartner, 2007, p.9;Horizon Report, 2008, p.8). Recent developments include the recognition that learning is a lifelong process, also referred to as informal, implicit or experiential learning, that is not restricted to the classroom or lecture theatre, and which has received great impetus from the knowledge-sharing and people-connecting developments of the internet. The term e-learning 2.0 has been coined to describe the possibilities offered by multimedia - from text to audio/visual - for creation and presentation of content, that have led to what Banse (2007, p.7) calls an "umfassender Kulturwandel" ("sweeping cultural change": *authors' translation*).

Current researchers of e-learning stress that e-learning is highly interdisciplinary in nature and thus requires designers and instructors with both pedagogical expertise plus technical knowledge and skills (Apostolopoulos, 2007; Reinmann, 2007). Thus views of learning theory are emerging that can link current developments in software, the internet and the web to the application of these in individual subjects and skills areas (see, for example, Caladine's Learning Activities Model and Learning Technologies Model, op cit). Within the history of pedagogical theory we have long since experienced a paradigm shift from instructivism to constructivism, also referred to as teacher-oriented to learner-oriented learning (Höbarth, 2007), whereby the learner is no longer a passive consumer of knowledge provided by the teacher, but takes an active part in the learning process, constructing knowledge and understanding by integrating new into existing knowledge through interaction with other learners, the instructor and the materials. The theory of constructivism has now received added impetus from developments in the internet and the application of these to e-learning environments: the shift from web 1.0, also known as the read-web, where content was provided by few for many, to web 2.0, or the read-write web, that is characterised by user-generated content and the sharing of knowledge through social software. Thus the hierarchical nature and static structure of earlier learning environments is giving way to a dynamic, networked learning environment. Bernhardt and Kirchner (2007) even suggest taking constructivism one step further with their idea of connectivism as a learning theory for the digital age.

Much of the data available on e-learning seems to indicate that the majority of courses now offered are in fact a combination of online-learning and traditional face-to-face (F2F) teaching - otherwise known as blended-learning. After initial forays into e-learning in higher education it has become clear that e-learning is not necessarily a way of effectively educating large numbers of students with a minimum of cost: not only must a great deal of time be invested in getting to know the technology, keeping up with the changes, and producing materials, but, most importantly, many of the online learning scenarios require intensive tutoring (Ecker, 2007; Schoop, 2007). Having said this, studies have shown that it is not possible to generalise across subjects and skills areas; as Kleimann (2008; p.87) points out, a critical mass of online self-study learners needs to be reached to compensate for the extra personnel costs involved in creating the course, and this "läßt sich nicht unabhängig vom konkreten Profil der einzelnen Szenarien beziffern" ("cannot be enumerated independently of the concrete profile of each individual scenario": *authors' translation*).

Leaving the question of cost-effectiveness aside, although the advantages of the anytime, anywhere aspect of pure online learning are obviously reduced in a b-learning environment, the advantages of including F2F meetings are primarily twofold: firstly, the social aspect - despite many of us being used to communicating online, few people would deny the value of personal contact and the opportunity this offers for more informal exchanges and getting to know colleagues, thus creating the more informal type of atmosphere beneficial to learning. This may well change in time with the growth in use of audio-visual conferencing tools, but it is hard to imagine the need or desire for this aspect of communication disappearing completely; secondly, the technological aspect - introducing a group of learners to new technology is clearly infinitely easier in a F2F environment.

However, perhaps the primary reason why b-learning is receiving ever-increasing attention is the above-mentioned need to incorporate new technologies into traditional F2F learning environments, thereby both embracing the changes the internet has brought to society as a whole and enabling learning to be more flexible. The Horizon Report (2008), which aims to "identify and describe emerging technologies likely to have a large impact on teaching, learning, or creative expression within learning-focused organisations" (p.3) reaches the conclusions that:

a) significant changes in scholarship, research, creative expression and learning have created a need for innovation and leadership at all levels of the academy - from students to faculty to staff and administrative leadership. It is critical that the academy as a whole embraces the potential of technologies... (p.5)

and:

b) The challenge is to develop curricula and assessment rubrics that address not only traditional capabilities like developing an argument over the course of a long paper, but also how to apply those competencies to other forms of communication such as short digital videos, blogs, or photo essays. (p.6)

These two conclusions proved to be particularly relevant when we were both designing and tutoring the course. Specifically, we had to ask ourselves: what forms of technology might be most useful / easily applicable as tools in a b-learning curriculum whilst retaining and achieving the overall aim of improving writing skills? Given the limited experience of both instructors and students in the use of new learning technologies this was not an easy task, albeit an intellectually challenging one.

The LMS and other Web - Based Technologies

The options open to the designers of e-learning courses include selecting elements of an LMS and / or other web-based technologies. Höbarth (op cit) chose to design her English courses for pupils and trainee teachers at secondary education level using the popular open source LMS *Moodle*. In a very different scenario, Bernhardt and Kirchner (op cit) focused on creating a personal learning environment (PLE) for their pilot courses in e-learning technology and electronic documents at university level. The PLE involves individual selection and integration of various web 2.0 applications with the aim of connecting previously developed and / or personal web 2.0 content to the institutional virtual environment - for example: photos in *Flickr*, bookmarks in *delicious*, personal hosting in *MySpace*, blogs, wikis, etc. – thereby even allowing the possibility of interaction with the public and greater experiential or authentic learning. The choice of technology thus reflects both the subject matter of the courses - English language and aspects of IT respectively - as well as the ages, skills and knowledge levels of the target learners.

In his description of e-learning 2.0 in 2006 Downes (in Caladine, 2008, p.4) predicted a move away from what he calls "monolithic LMSs" to more flexible PLEs. However, LMSs are continually integrating new technology, often in a simplified form, so they are far from redundant and may well serve the purposes of less technologically savvy users better than the creation of PLEs. LMSs have moved on from being merely a static repository for documents to a dynamic learning environment with the addition of asynchronous discussion forums, online synchronous chat, and mini wikis for collaborative work, amongst other elements, resulting from the web 1.0 to web 2.0 development, and in particular the huge uptake in the use of social software. Although Hörbarth (op cit) comments that *Moodle* is frequently "misused" (p.188) as a document container, we would suggest that this stems merely from instructors' lack of knowledge of the dynamic elements, frequently due to a lack of time and / or motivation to explore the possible uses of the further elements, as well as the fact that it is indeed a very good administrative aid.

THE COURSE

The Technology

We chose to incorporate an open source wiki with elements of the university LMS (*CampusOnline*). After the students have registered for the course the LMS automatically generates a list of participants plus email addresses, enabling quick and easy email contact through clicking on a name, and offers a number of optional elements, from which we chose the following:

- The news facility: to provide general information on, for example, deadlines, and any extra comments we deemed it necessary to clarify the ongoing tasks.
- The syllabus: for week by week instructions, explanations, worksheets and links to online sources necessary to carry out the tasks.
- An asynchronous discussion forum: for questions and discussion related to the course.
- Synchronous chat: available to the participants whenever they wished, but with instructors on a weekly basis - basically as the online equivalent of an office hour (the F2F office hour was also available to the students, as for the students of all other traditional F2F courses we offer), where participants could ask questions and receive immediate feedback.

The LMS proved to be a good organiser; by clicking on "*what's new?*" in the tool bar you can view a list of all new information that has been posted, so that you don't miss anything. However, it also has its limitations: the wiki option available at the time was very restrictive - with only single pages incorporating a word limit for each contribution and the rather dangerous possibility of deleting the whole content - never to be retrieved - with one mis-click. For this reason we chose to incorporate an open source wiki, which offered the following advantages:

- With individual writing tasks the students could (and were encouraged to) include pictures and links to relevant websites, which proved to be a motivating factor in the assignments. This supports the view of writing as a product.

- Collaborative work is possible through the edit function, supporting the writing as process model. After editing, previous versions are automatically saved with changes highlighted in a different colour. Versions can then be compared, and previous versions reinstated if deemed necessary.This option can be used for correction (peer or instructor) of a particular task, but also allows the participants to work on a joint project.
- After (instructor) correction of written tasks, the learner has the advantage of being able to compare the "before" and "after" versions.
- In great contrast to traditional classes, where the learner writes only for the instructor's eyes (and a grade), the writers are now completing a more authentic task by "publishing" their work to be read by a wider audience, if only the other members of their peer group.
- The publication of the participants' work also allows the learners to read the work of their peers and thereby position themselves within the group - in most traditional instruction, learners rarely read the work of their peers.
- Reading the work of peers and collaborating on a project promotes the sharing of knowledge.

We tried to use the two main online elements (LMS and wiki) to reflect the F2F environment, with "classwork" posted in the LMS, and "homework" on the wiki, whereby we also hoped to encourage movement between the two online environments. In addition email was used for the exchange of individual peer assessment tasks. (In choosing the settings for the wiki we decided to restrict access to the course participants, although it would be quite feasible to allow access to the wider public.)

In selecting these elements we took into account the cognitive overload that may be caused by introducing too much new technology and which may lead to superficial learning (Höbarth, op cit), given that the majority of the students had worked with neither the LMS nor a wiki before, and that the primary aim of the course was to improve L2 writing skills. However, as Caladine (op cit) points out: whereas technology may be seen as an adjunct in traditional F2F classes, it plays a central role in online learning.

In addition we hoped that writing tasks in the wiki might encourage a focus on the structure of the text as a whole rather than on individual items of lexis and syntax, which we have found to be a general problem in learner writing. As Jones (2008, p.284) points out:

it could be said that Wikipedia encourages the overproduction of macrostructure edits [major revision that would alter the summary of a text], making the production of microstructure edits [revisions that would not affect the summary of a text] comparatively rare and therefore valuable…. one could speculate that a structural feature of or features of the US academic system …somehow encourages the overproduction of microstructure edits….one possible reason for this [is]– the long dominance of grammatical and stylistic training at the expense of other conceptions of writing in the US school system. This speculation, if true, would suggest a compelling reason for using wikis in the classroom, namely, that the overproduction of macro and micro edits in the respective systems would balance each other out and possibly produce higher-quality writing.

We suggest that learner focus on errors at the word and sentence level seems to be a universal problem in L2 writing and is not restricted to the US – it is certainly a problem in the writing of our students.

The Participants

We asked for volunteers from our first year (obligatory) Foundation Course: Grammar and Writing, then selected ten participants from those students whose English competencies fell in the middle range - assessed by exam and instructor's assessment of coursework - after completion of the Foundation Course. This was to cancel out the possible skewing effect of either excellent or very weak students. All participants were L1 German speakers.

Outline of the Syllabus

The course ran for one semester of 15 weeks, parallel to other F2F courses in our teaching programme. We published the tasks on a weekly basis online, and, as mentioned above, held a weekly virtual office hour (optional) in the form of the online synchronous chat in the LMS. In addition we planned and held the following F2F meetings:

Two F2F sessions in weeks 1 and 2 in a computer pool, getting to know each other and introducing technology (LMS and wiki).

One F2F mid-term in week 8.

Two individual appointments with instructors to discuss individual feedback on first essay and preparation for final essay in weeks 9 and 13 respectively.

One final F2F for return of final essay and group feedback in week 15.

Assessment was based on successful completion of weekly tasks (25%), one mid-term essay (25%) and a final essay (50%).

Online Resources

During the course we introduced the participants to the following online resources:

1. Dictionaries - both bilingual and monolingual, both open source (ie. leo.org) and from the university intranet database (ie. a variety of Oxford dictionaries).
2. Punctuation guidelines and exercises from the University of Ottawa: http://www.uottawa.ca/academic/arts/writcent/hypergrammar/punct.html
3. Internet research tutorial from http://www.vts.intute.ac.uk/detective/index.html, a site providing web resources for education and research, provided by a consortium of universities.
4. We also designed one task to include audio-visual elements, referring the participants to the online political comment from http://www.msnbc.msn.com/id/24797758/, which is captured on video and followed by a written text. The students were asked to summarise and re-write the diatribe in a neutral tone.

Digital Communication Within the Course

One of the most difficult aspects of the course for both instructors and participants involved, perhaps not surprisingly, communication. There was some confusion in the early stages of the course regarding the tasks to be carried out, which would have been easily solved had the participants made use of the group communication facilities; either the students did not ask for clarification at all and did the wrong thing, or we received individual emails asking the same questions. However, it turned out to be surprisingly difficult to persuade the participants to use communication tools other than email, which is the standard form of communication with instructors outside the classroom. We had to repeatedly draw students' attention to the online group communication options of the forum and chat for questions, where we hoped students would interact and assist each other with clarification questions. However, the synchronous chat was scarcely used (see *Feedback and evaluation* below for an example) and we had only four examples of student/student interaction in the forum. Two of these are reproduced here:

1. Student A: why do we have to put the comma after the book title inside the single quotation mark?

Student B: I was thinking about this aspect too. But the only answer to this question I found so far was: Convention. "Note that commas and periods go inside the closing quotation mark in conventional American usage" (http://owl.english.purdue.edu/handouts/grammar/g_overvw.html Quotation marks)

2. Student A: I just want to make sure that I understood everything:

by tomorrow, we are supposed to send the outline (NOT the 'real' essay!?), the thesis statement and the sources to both instructors. And on Tuesday, we have to bring a hard copy of the 'REAL' essay to our appointments which will be marked and grated and turned back on February 10th.

Am I right?

Best wishes…

Student B: I think so. Today at 8pm you should have sent your outline and on tuesday you take it with you to the appointment:) That's what I think it should be done

Student C: So you didn't understand it, I think.

Check this:

"Mail us your thesis statement and detailed outline by Monday 20.00 and bring a hard copy of this to your individual appointment for discussion."

"This" refers to the outline, not to the real essay!

Increased dialogue of this type towards the end of the course, although primarily involving answers from the instructors, suggests that the students did learn to make use of this element. However, there is obviously a need to impress on participants the value of group communication at the beginning of the course, perhaps with exercises requiring the use of these tools. Perhaps, however, participants' preference for asking clarification questions in a private email rather than in the forum or chat may be explained by the fear of appearing ignorant in public – the forum and chat can be read by the whole group, whereas an email will probably only be read by the instructors.

Finally, the questions posed by the participants showed us that the instructions we gave for each individual task were not always as clear as they appeared to us.

Feedback and Evaluation

The following options were provided for student feedback:

- The ongoing, private wiki page (as described above).
- The asynchronous discussion forum in the LMS.
- The online chat (synchronous), also in the LMS.
- F2F in the final session, where we discussed some of their comments and suggestions

for improvement to the course, noting these on a wiki page, and where the students also filled out the generic university feedback / evaluation form (multiple choice, see Appendix) and returned this anonymously.

Overall the students were positive about the course, albeit with certain reservations; the ratings on the standard university feedback form (see Appendix) were in fact only average, below those we usually receive for our traditional F2F courses.

On the Writing Process

- The loudest request was for more instructor feedback on their writing, which is in fact the same in F2F courses - in an ideal world participants would like all their writing to be corrected by the instructor, although this is obviously not possible timewise. Anticipating this we had to persuade the students of both the value of writing practice per se to improve writing skills (see Fathman & Whalley, 1990), and also the value of peer review, ie. practice in exercising your judgement on the writing of others, which in turn helps you to reflect on your own writing and, additionally, strengthens group cooperation (Höbarth, op cit).
- Peer review (using Microsoft Word "track changes" and "comment" functions) was at first criticised by many ("we don't know what's right or wrong"), but, encouragingly, in the final session the suggestion was broached that each completed task should be reviewed by two peers instead of just one. Thus participants learned to appreciate both reading and commenting on the work of their peers. One student wrote that it was challenging to trust her feelings and correct peer errors and good to feel one can improve without instructor feedback. This fact alone, the change from disbelief, even distrust of peer review as a tool in improving writing skills to acceptance and understanding should be emphasised because it seems to represent a significant insight on the students' part into the very process of writing. Although possible in a traditional F2F course, word-processing tools and online publication certainly facilitate this approach to the writing process.
- Revising their own text was generally found to be a difficult task, as all students had little or no experience of this. The students are used to writing an assignment, handing this in to the instructor and receiving a grade – frequently with feedback in the form of corrections and comments for improvement, but with no motivation to act upon these as the assignment has already been graded.
- In the final feedback session the students were reluctant to comment on whether they felt their writing had improved - perhaps because they were unused to reflecting on their own work, though all were in agreement that they now realised that improving writing is an ongoing and lengthy process that cannot be considered "done" in one short course.

On the Technology Used

With no institutional experience of e-learning the course was a real leap in the dark for everyone, but there were no complaints about using the technology, bar certain aspects of the editor function on the wiki that were in fact faulty.

- The use of online resources as mentioned above, particularly the incorporation of audio-visual material in the tasks to be completed and the option of including these in their own published work, were rated highly.

- The online learning aspect of the course was judged as useful for teacher trainees (a large proportion of the students of English are trainee teachers), given that secondary school teachers are currently experimenting with online learning, and the incorporation of e-learning into the traditional curriculum is expected to increase.
- Flexibility regarding time and place was appreciated, though two students commented on the difficulties they experienced with the high degree of self-discipline necessary to complete the online tasks by the deadlines.

On Social Interaction in Digital Communication

- Two students mentioned (two-thirds of the way into the course, both online and F2F) that they felt isolated, and suggested more F2F sessions / synchronous group discussion in a future course to get to know the other participants better. However, as others pointed out (in the final F2F feedback), this would cancel out the advantages of a b-learning course.
- During one of the (rarely taken advantage of by the students) synchronous chats 2 of the 3 online participants finished by discussing their social plans for the evening. This led to the third online participant later complaining F2F about the use of the chat facility for private conversations. Thus there was a discrepancy between the students' expectations of exactly how the chat element should be used: for academic or private discussions.

SUGGESTIONS FOR FUTURE RESEARCH

Our experience with this pilot course suggests at least one possible area for future research, focusing on language structures, e.g. an analysis of the written language produced in assignments on the b-learning course compared to that of traditional courses: is there any evidence to suggest differences in the number of macro-/micro-structure errors, as suggested by Jones (op cit) in his research into Wikipedia edits? Unfortunately we found that time constraints did not allow us to approach this area at all.

PEDAGOGICAL IMPLICATIONS

Working on the understanding that "the need for modularisation and flexibility as well as internationalisation will continue to increase[, m]edia rich materials and scenarios will gain in importance as the demands for flexibility of time and place increase" (Ecker, 2007, p.242 [authors' translation];cf. Stary, 2007) and that qualities and skills learnt and practiced in a b-learning environment represent "necessary competencies in modern organisations where international teamwork over long distances [is] becoming the norm" (Schoop, 2007,) - in other words, b-learning is here to stay and the need for some form of it will, indeed, increase - it is therefore essential that we take a look at what we believe can be applied to future courses. Using student feedback, our own perspectives and input from the literature, we can formulate the following main conclusions:

Time: As Ecker (op cit) and others have rightly pointed out, and as we ourselves have seen in this course, the implementation and use of new media in college level instruction is a very time intensive process. Although we can confirm that the use of new media added a richness to the course, the time it takes to familiarise oneself with the technology and how to use it must obviously be subtracted from the time spent on writing. In this course this meant that we were not able to develop all the areas of writing instruction that we had originally envisioned; specific examples of this in our course were not being able to exploit collaborative writing exercises (wikis) nor being able to devote sufficient time to FOEs or other typical problems of German interference. This, coupled with the desire of students for more feedback, clearly seems to suggest at least a few possible directions in which future (writing) courses could be developed, but the basic thrust would be: Either much more time (or personnel) needs to be allotted for b-learning courses in general or, as time (and personnel) allows, individual elements of e-learning could be integrated into existing conventional courses bit by bit, thus transforming them slowly but surely into de facto b-learning courses. Either way, one would have to be aware of and accept the very real limitations that time puts on any course like this. Further possibilities for dealing with this aspect might be things like utilizing block seminars, for example to familiarize students with the technology, or the additional implementation of small group work. Technology and infrastructure: If the use of new media is to be expanded, there will have to be an adequate technological infrastructure. At the moment even a partial move to an e-learning based curriculum on a permanent basis at our university would present a significant challenge: the problem easiest to pinpoint here is the simple fact that there are just not enough multimedia rooms available. To illustrate this point: if only half of all English Department courses alone were to become b-learning in nature, a large portion of, if indeed not all, available space and time in the rooms allotted for all humanity departments would be booked out. Add to this the often less-than-optimal set-up of such rooms, the somewhat time-consuming administration of and scheduling of such rooms, and at times minimal technical support, it becomes clear that the entire technical infrastructure has to be expanded and improved upon as well. We believe it is widely recognized that this factor will probably continue to be a stumbling block as resources to make this possible will always be slow in coming (cf: Apostopoulos, op cit). Nevertheless, if progress is to be made in this area, serious commitment to improving the general infrastructure on a long-term basis will have to be made.

People: For this project we had a very good, some would probably say optimal, instructor-student ratio (1:5). This is, however, far from the norm here: even the occasional course with "low numbers" will typically have a ratio of 1 to at least 10. In spite of this all of the difficulties outlined above were at the very least noticeable and often a real hindrance. Much the same way that time and resource restrictions would have to be accounted for, the number of people able and willing to implement new media would have to take into account in a realistic way as well. Related to this, yet going a little beyond it, however, is the entire question of how to transfer knowledge and experience obtained by those conducting such a project to those proposing to conduct a similar project in future. Just as students needed time and actual experience working with the technology in order to use it efficiently, we have seen that explaining what we were doing to our colleagues is also time-consuming. Looking ahead, if we are ever to arrive at a situation in which most or all instructors are sufficiently "fluent" in the technologies and the ways of using them to focus most of their attention and energy on "didactic fantasy" (Wedekind, 2007, 74) - arguably an activity more important than simple mastery of technology - then we are going to have to deal with this as well. While reading about our experiences in, for example, this publication might be one way to go about this, we suspect more efficient ways might be to enable instructors to take part in hands-on training whether they be teaching or learning the technology (Kerres, 2007), for instance by freeing up time or resources elsewhere.

CONCLUSION

Online-learning and all that is associated with it clearly opens up new and exciting possibilities for augmenting instruction at university level.

In an internationalised world it will continue to grow in importance. Realistically meeting the challenges - in terms of communication, time, resources and people - that come along with this growing need will be one of the foremost tasks we, as instructors, will have to attend to. We hope that by sharing our experiences in this forum we will have made some specific and helpful contribution to doing exactly that.

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KEY TERMS AND DEFINITIONS

Blended Learning: A combination of traditional and online teaching / learning.

F2F - Face-to-Face: Refers to the traditional classroom situation in which both instructors and students are physically present; antonym would be 'online' or 'virtual'.

LMS: Learning Management System; software for delivering, tracking and managing online courses; at our University this is called *CampusOnline*; *Moodle* is a similar system.

Moodle: A free and open source e-learning software platform; an example of an LMS.

Open Source: (broadly) Refers here to software that is "free", i.e. no payment is necessary; more specifically it refers to software distributed under licenses guaranteeing anybody rights to freely use, modify, and redistribute, the source code.

PLE: Personal Learning Environment; refers to the individual selection and integration of various web 2.0 appplications with the aim of connecting previously developed and / or personal web 2.0 content to the institutional virtual environment.

Social Software: Refers to a wide range of software systems that allow users to interact with one another and share data; Wikipedia, YouTube & FaceBook are well-known examples of this kind of software.

Wiki: A collaborative website whose content can be edited by anyone and everyone who has access to it.

Section 5
Conceptual and Theoretical Issues

Chapter 47
New Directions in Understanding Cyberbullying

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ABSTRACT

This chapter focuses cyberbullying, or bullying messages that are transmitted via electronic technologies. This chapter synthesizes research focusing on predictors and outcomes associated with cyberbullying into an overall conceptual message-based model that highlights both the role of messages as products of various influences, and the messages themselves as influences upon numerous affective, behavioral, and cognitive outcomes. The chapter provides (1) an initial review of how cyberbullying and related behaviors are termed and defined; (2) an overview of message factors that predict cyberbullying messages and tactics, and (3) a discussion of the outcomes of cyberbullying. The chapter concludes by offering potential solutions and recommendations to problems associated with cyberbullying.

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Figure 1.

INTRODUCTION

"I hate you. Everyone in town hates you. You'd be better off dead!" A generation ago no one considered how bullying messages such as these might be sent via interactive mediums. Yet, in contemporary society there are a range of interactive mediums that have the potential to be maliciously utilized, especially by today's tech-savvy youth. Malicious behavior can be inflicted through many different mediums and channels, ranging from photos, text messages, email, instant messages, cell phone video, webcams, personal digital assistants, and computers. Students have the ability to send one another threats, incriminating or doctored photographs, explicitly worded messages or more depending on the creativity of the perpetrator. Moreover, students across age groups are clearly taking advantage of both an array of and access to these mediums to deliver malicious messages. The Pew Internet and American Life Project (Rainie, 2008) reports that 94% of teens use the Internet, 71% own a cell phone, approximately 70% connect to the Internet wirelessly, 62% go online daily, and 58% have created a profile on a social networking site such as Facebook or MySpace. The combination of persistent access to interactive technologies and potential for malicious use suggests the need for an examination of the nature of the communication individuals engage in as well as the context in which it occurs.

The prevalence of online bullying, commonly termed *cyberbullying*, provides further warrant for the need for such an analysis. Recent research suggests between 9-35% of youth have experienced cyberbullying. For example, Beran and Li's (2005) study of school-aged individuals estimates that between 20-35% have experienced some form of harassment. Consistent with these estimates, Kowalski and Limber (2007) reported that 22% of their student sample was involved in episodes of electronic aggression. Other studies report more modest estimates. Wolak, Mitchell, and Finkelhor (2007) in their examination of 1500 youth aged 10 to 17 found that only 9% of their sample engaged in cyberbullying. However, reported frequencies of cyberbullying across studies may differ because, as we discuss below, the term is not consistently conceptualized or operationalized in a consistent manner from study to study.

The emphasis of the present chapter is on bullying messages that are transmitted via electronic technologies. As we summarize below, this type of communication has been defined in a variety of ways, although an integrated understanding of the factors that lead to and the effects of such communication has yet to be documented. The present chapter addresses these concerns by synthesizing research focusing on predictors and outcomes associated with cyberbullying into an overall conceptual message-based model (Figure 1). We refer to the model as message-based because it (a) highlights the role of messages (as identified in the current literature) as *products* of various influences as well as (b) the messages themselves as *influences* upon numerous affective, behavioral, and cognitive outcomes. We begin first with an initial review of how cyberbullying and related behaviors are termed and defined. The following sections of the chapter are organized according to message factors that predict bullying messages and tactics, followed by a discussion of the outcomes. The final section offers potential solutions and recommendations to problems associated with cyberbullying.

DEFINING CYBERBULLYING

Many adolescents today expect to communicate using electronic media. Schools often have computer access and students' academic and social success is somewhat dependent on their proficiency online. The National Center for Education Statistics reports that 83% of students use computers at school while 68% use computers at home (DeBell & Chapman, 2006). For students of today's digital world, having a cell phone is almost as common as owning a backpack. Yet, a growing problem has emerged regarding the proliferation and popularity of interactive electronic mediums. New communication technologies, such as online chat rooms, instant messaging, social networking sites, and text messaging are being utilized by adolescents to harass, embarrass, threaten, and even harm their peers (Vanderbosch & Cleemput, 2008).

Terms such as cyberbullying, Internet harassment, and Internet bullying have been used to describe these forms of online aggression. According to the Centers for Disease Control and Prevention (CDC; 2008), the umbrella term of *electronic aggression* best captures all types of aggression that occur electronically. However, the CDC's implicit recommendation to use an all encompassing term is somewhat new and has not made much headway in popular press or scholarly literature. The CDC defines electronic aggression as "any type of harassment or bullying (teasing, telling lies, making fun of someone, making rude or mean comments, spreading rumors, or making threatening or aggressive comments) that occurs through email, a chat room, instant messaging, a website (including blogs), or text messaging." The term electronic aggression, however, pales in use and connotation to the widely utilized term known as *cyberbullying*. The Center for Safe and Responsible Use of the Internet (Willard, 2007) defines cyberbullying as disseminating harmful or cruel speech or engaging in other forms of social cruelty using the Internet or other information communication technologies. Other researchers have more succinctly conceptualized cyberbullying as "willful and repeated harm inflicted through the medium of electronic text" (Patchin & Hinduja, 2006, p. 148).

The specific definition and label "cyberbullying" has been somewhat challenged in recent scholarship. The challenge appears to be due to some slippage in the level of congruence between bullying in the traditional "in-person" sense and bullying in a mediated environment. Traditional bullying has been defined by researchers and school practitioners as requiring aggression, repetition, and a power imbalance between victim and perpetrator (Wolak et al., 2007). Yet, most investigations of cyberbullying incidents do not appear to consider repetition or power. When repetition was measured by Wolak et al. (2007), it was found that only 25% of incidents by known peers and 21% by online-only contacts labeled as cyberbullying involved repeated incidents or even distress to the bullied individual. As it appears now, there are fewer requirements for one to be cyberbullied than plain bullied.

For the purposes of this chapter, we utilize Roberto and Eden's (in press) definition of cyberbullying as "the deliberate and repeated misuse of communication technology by an individual or group to threaten or harm others." This definition was culled by examining the literature (e.g., Agatston, Kowalski, & Limber, 2007; Beran & Li, 2006; Kowalski & Limber, 2007; Kowalski et al., 2008; Li, 2006, 2008; Mason, 2008; Patchin &

Hinduja, 2006, 2008; Strom & Strom, 2005; Willard, 2007; Ybarra & Mitchell, 2004) and reviewing numerous personal narratives on cyberbullying (e.g., Addley, 2000; Brady & Conn, 2006; Currier, 2008; Krim, 2005; Struglinski, 2006). As a result of this investigation, their definition offers five distinct components that must exist for a well-rounded definition of cyberbullying.

First, cyberbullying entails the use of *communication technology* described as communication across one or more electronic or digital media (Roberto & Eden, in press). Though certainly not exhaustive due to the rapid evolution of technology, this concept includes everything from voice, text, picture, or video information exchanged via cellular phones to e-mail, instant messaging, Web sites, or chat rooms over the Internet. Second, cyberbullying entails the act of *threatening* or *harming* others. Third, cyberbullying is differentiated from harmless or playful teasing in that it requires intent to *deliberately* harm or tease a person for a negative effect. Fourth, cyberbullying indicates a *repeated* behavior whether it is a post to a Web site that can be viewed numerous times or the sending of multiple emails or text messages. Fifth, either an *individual* or *group* can take on the act of cyberbullying to harm or threaten another.

RATIONALE FOR A MESSAGE-BASED APPROACH

The misuse of communication technology in and of itself is not what makes it so important to study cyberbullying from a message-based approach. The creation and transmission of verbal messages, and language utilized therein, require examination as they are likely to result from a myriad of influences above and beyond the technology employed. Assessment of these influences, either in isolation or in conjunction with other factors, may provide complex insight into the production of cyberbullying messages. Furthermore, assessment of the impact of said messages on recipients' well-being may provide insight into potential interventions and identify conceptual gaps in need of scholarly attention. It is from this perspective, one that acknowledges the central role of messages in the cyberbullying process, that the present chapter summarizes relevant literature and offers a conceptual model that incorporates message-based predictors and outcomes from existing literature.

Of additional concern is the degree to which the act of cyberbullying results in a negative adverse effect on its victim. As a result, a theory might have particular utility in its ability to explain what happens as a result of the cyberbullying act. Particularly, *symbolic interaction theory* (SIT; Goffman, 1959; Rose, 1962) provides an explanation of the process victims might endure as they attempt to deal with the threat or harm from another. SIT places an individual's progression of self by way of the social encounters or interactions they have with others. These interactions are composed of the negative or positive messages individuals receive from others in their social environment. This theory draws attention to the specific messages that are received, not just that a message has been sent in the first place. Ramirez, Eastin, Chakroff, and Chicchirillo (2008) summarized key SIT assumptions that clarify how this process may occur and the impact cyberbullying may have on individuals.

Whereas SIT holds that one's sense of the self is a product of their interactions with social groups such as family and friends, messages associated with cyberbullying have the potential to skew self-evaluations (e.g., self-esteem, self-concept). As noted in this chapter, perpetrators utilize the anonymity new media provide to achieve their goals (Patchin & Hinduja, 2006; Ybarra & Mitchell, 2004b). Cyberbullying messages may be transmitted with little or no fear of retribution from victims. Skilled cyberbullies may craft their messages so to maximize impact upon targets' sense of self. The widespread use of social media, such as social network sites and video posting spaces, can further heighten the effect of such messages by allowing cyberbullies to recruit a wider audience. The victims themselves may be made aware of the existence of, for example, virtual spaces dedicated to attacking or derailing him/her as to increase message impact. The end result is significant damage to the victim's sense of self.

Because SIT proposes that meaning is negotiated through language, the use of name-calling and denigration—common forms of cyberbullying—have the potential to further skew self-assessments of victims. Mass dissemination of text messages, emails, and other electronic communication holds the potential to allow labels and threats to persist beyond what would be expected in typical face-to-face interaction (Patchin & Hinduja, 2006; Ybarra & Mitchell, 2004b). This type of behavior is significant to our understanding of a message-based model for two reasons. First, new technology, due to its perpetual connectivity, has the potential of quickly and easily developing agreement among peers as to what labels and terms should be used to refer to a disliked other. Second, as SIT theorists hold, once a label has been applied it is difficult to dispel and its effects difficult to reverse. With respect to cyberbullying, a victim may begin to feel uncertainty about his/her sense of self if the individual is consistently subjected to a derogatory name or label. Thus, the effect of cyberbullying may significantly affect what a victim believes about his/her own identity.

The application of SIT to cyberbullying also offers insight into how cyberbullying messages may be linked to victim well-being. Although studies associated with this issue are reviewed more in-depth below, it is worth noting that several studies report findings consistent with this rationale (Mitchell, Finkkelhor, & Wolak, 2003; Ybarra, 2004; Ybarra & Mitchell, 2004). The next section focuses on message-related factors that predict cyberbullying. In doing so, we highlight three factors identified in the scholarly literature as important considerations for understanding the creation of cyberbullying messages: biological sex, goals, and skills.

MESSAGES AND MESSAGE-RELATED PREDICTORS OF CYBERBULLYING

Biological Sex

The primary individual difference characteristic examined in studies of cyberbullying behavior is biological sex or what some researchers call gender. In many Web sites, newspaper articles, and academic scholarship an underlying assumption is that girls are more likely to bully in online environments than boys (Crick & Grotpeter, 1995). Recent studies have substantiated this assumption by explaining that girls are more likely to cyberbully because of their preference for using indirect methods of aggression (Bowie, 2007). Due to its capacity for anonymity, the Internet is a likely place for utilizing indirect aggressive methods.

Accumulated research reports that girls are responsible for a higher proportion of online incidents than boys (e.g., Willard, 2007). Findings not only indicate that girls may be involved as perpetrators of more incidences of cyberbullying, they might also be victims more often than boys, too (Kowalski & Limber, 2007). Although there seems to be some truth to girls being involved in cyberbullying more than boys, some studies report inconsistent findings concerning sex differences and cyberbullying. Williams and Guerra (2007) found a lack of significant difference between boys' and girls' involvement in online cyberbullying, and Li (2006) concluded that males were more likely to be cyberbullies than females. In the future, as additional cyberbullying research is conducted, a meta-analysis in this area of literature would certainly be a worthwhile endeavor for the interested researcher, especially to parse out differences between cyberbullies, victims, and cyberbully-victims by biological sex.

Goals

Like other form of aggressive behavior, verbal strategies enacted in the cyberbullying process are goal-directed (Pellegrini, Bartini, & Brooks, 1999). Insight into the potential goals of cyberbullying messages can be drawn from research conducted by Harachi and colleagues (1999), who proposed that aggressive behavior may take distinct forms: pro-active aggression and reactive aggression. Pro-active aggression, for example, highlights the perceived or potential benefits that may be derived from enacting aggression and may take the form of pro-active instrumental or pro-active bullying aggression. *Pro-active instrumental aggression* does not involve accomplishing a social goal but rather uses aggression as a tool for the goal of acquiring some object. Because the primary goal is not a social one, verbal bullying strategies based on this form of aggression likely rely less on social/relational threats and more on threats relative to what might happen to the recipient if the desired object is not surrendered. *Pro-active bullying aggression* is enacted with the goal of peer intimidation, domination, and control. Verbal bullying strategies based on this goal likely reflect personal attacks, ad hominin insults, and/or peer degradation. Conversely, *reactive aggression* is typically conceptualized as a response to some provocation. As such, the underlying goal, and messages based upon it, likely reflects the need for revenge or to retaliate against the target for perceived hostile action(s).

Other approaches to aggression have identified complimentary goals which may underlie messages associated with bullying. Research by Crick, Casas, and Mosher (1997) proposes a direct/indirect dichotomy of aggression. Direct or *overt aggression* has the goal of inflicting harm upon its target. Similar to pro-active bullying aggression, overt aggression may be physical such as pushing, kicking, and punching the target. It may also be psychological in the form of threats, name calling, or physical threats. Indirect or *relational aggression* has the goal of inflicting harm upon the relationships of the target. By enacting verbal strategies such as rumor spreading and forms of social exclusion, bullies focus on the target's social network as their primary means of exacting aggression and punishment. The effects of overt aggression may be harmful to targets, yet those associated with relational aggression may be more long-lasting and difficult to overcome in the long-term (e.g., Crick & Grotpeter, 1995).

Most relevant to the present chapter is that both the types of aggressive behavior discussed by Harachi et al. (1999) as well as those proposed by Crick and colleagues (1997) need not be limited to in-person interactions. That is, the goals and message strategies identified above may be performed via computer-mediated communication as well as face-to-face. For instance, one instantiation of such verbal aggression is that of *flaming*, or the transmission of a hostile message through a computer-mediated channel (O'Sullivan & Flanagin, 2003). Although early research on computer-mediated interaction attributed such behavior to the use of text-based tools (e.g., email, computer conferencing, bulletin boards, etc.) that obfuscated sender identity, more recent conceptualizations suggest more complex influences including sender intentionality, language use, and channel selection (O'Sullivan & Flanagin, 2003). Given that goals likely play a central role in each of the aforementioned factors, this extension of the study of verbal aggression suggests one potential manner in which bullying may manifest itself in mediated interactions (see Roberto & Eden, 2009, and Ramirez et al., 2008, for a similar discussion).

Verbal Skills

Beyond goals, accumulated research also suggests that verbal competency is another significant factor to be considered in understanding a message-based approach. Communicators may pursue their goals, but they must have the communication skills to achieve them. Despite the fact that most definitions of bullying give prominence to the potential for an abuse of physical power in its pathology (Olweus, 1995; Smith & Sharp, 1994), creating an imbalanced relationship that makes it difficult for targets to physically defend themselves, other research suggests deficits in verbal skills (or lack thereof) may also influence the bully-victim relationship (e.g., Hazler, Miller, Carney, & Green, 2001). A mismatch in skill, for instance, between bullies and victims may exacerbate the situation, with verbal aggression serving as a precursor to physical aggression (e.g., see Roloff, 1996; Ranner & Avtgis, 2006; Roberto, 1999).

Considered together in the broader context of verbal aggression, the aforementioned bullying tactics and requisite skills needed to enact them are consistent with the *communication skills deficiency model* (CSDM; Infante & Wigley, 1986; Wigley, 2008). The CSDM proposes an explanation for understanding the circumstances under which individuals resort to physical and/or verbal aggression. The model distinguishes between verbal aggressiveness, verbal aggression, and argumentativeness. *Verbal aggressiveness* is conceptualized as, "a personality characteristic involving one's tendency to attack the self-concept of others" (Wigley, 2008, p. 340; see also Infante & Rancer, 1982), whereas *verbal aggression* refers to "the behavior of engaging in aggression" (Wigley, 2008, p.340; Infante, 1995). Conversely, *argumentativeness* is conceptualized as the expression of arguments directed at support or denial of a claim; argumentativeness is defined as a trait, whereas arguing the behavioral manifestation of it.

The CSDM holds that poor communication skills (in this case the ability to effectively argue) may be a precursor to aggressive communication (verbal aggression; Infante & Rancer, 1982). Accumulated research documents the positive and constructive nature of argumentativeness versus the negative and destructive nature of verbal aggressiveness in relationships. Literature reviews conducted by Infante and colleagues consistently report that little evidence supports a link between higher levels of arguing and physical aggression across contexts; stronger support exists for the link between verbal aggression and physically aggressive behavior (Infante, 1987; Infante & Rancer, 1996; Rancer & Avtgis, 2006; Wigley, 2008).

Message Strategies

Despite the fact that goals influence the message strategies cyberbullies may enact, relatively few studies have examined the specific strategies themselves. Both Kowalski, Limber, and Agatson (2008) and Willard (2007) identified several similar forms in which cyberbullying may manifest itself including cyberstalking, denigration, harassment, impersonation, outing, social exclusion and trickery. Patchin and Hinduja (2006) proposed in their operationalization that cyberbullying may emerge as when someone is disrespected, name-called, made fun of, picked on, had rumors spread about them, or threatened online. Vandebosch and Cleemput (2008) have even posited the terms cyber-arguing and cyber-teasing to differentiate between whether a perpetrator did or did not intend to hurt a victim, respectively. Others studies report forms of cyberbullying also include the use of anonymity, pseudonyms, aliases, and masquerading (Bamford, 2004). Although not a verbal strategy, Beran and Li (2005) added the posting of unflattering pictures of a target as a form of cyberbullying. Consistent with the prior discussion of potential goals of cyberbullying messages, several of the strategies fit clearly with forms of aggression such as overt (e.g., name-calling, online threats) and relational (e.g., social exclusion, rumor spreading, impersonation).

OUTCOMES ASSOCIATED WITH CYBERBULLYING

Effects of Cyberbullying

Prevention of cyberbullying is necessary, as bullies, victims and bully-victims all suffer negative repercussions. Diamanduros, Downs, and Jenkins (2008) argued that the negative consequences of cyberbullies and traditional bullies are highly similar. For the individual being bullied, potential effects include substance abuse, depression or feeling sad, hopeless and powerless (Carlyle & Steinman, 2007; Raskauskas & Stoltz, 2007). Victims also suffer setbacks to their self-esteem and scholastic achievement (for a review, see David-Ferdon & Hertz, 2007). In some cases, being cyberbullied has even led to adolescents committing suicide, as the much-publicized Megan Meier case illustrates (Megan Meier Foundation, 2009). Clearly, this affects not only the individual, but also their families, friends, and the community. Additionally, it is not only the victims, but also cyberbullies themselves who report negative consequences. According to Ybarra and Mitchell (2004), cyberbullies are more likely to report frequent substance use. In fact, Carlyle and Steinman (2007) found that substance use is more strongly associated with bullying aggression than victimization. Although depressive affect is more strongly associated with victimization, it is nonetheless also related to bullying aggression (Carlyle & Steinman).

In addition to bullies and victims, another group known as bully-victims exists, too. This group is made up of those victims who are also themselves bullies. Those who belong to the bully-victim group are found to be adversely affected in a number of ways (Carlyle & Steinman, 2007). Bully-victims tend to perform poorly in school and demonstrate behavioral problems (Diamanduros et al., 2008). Bully-victims have also been described as socially isolated, lacking friends and supportive relationships with their classmates (see Limber, 2002). Bully-victims were depicted by Diamanduros et al. (2008) as more likely to be depressed, have low self-esteem and experience insecurity and social isolation, as well as more likely to demonstrate passive-aggressive behavior. Bully-victims parents' may be over- protective, and thus adversely impact their youth's development of coping skills (Limber, 2002). Cyberbullying studies have only recently begun to separate samples into three groups of bullies, victims, and bully-victims in an attempt to parse out specific characteristic that differentiate between the groups (e.g., Diamanduros et al., 2008). Conducting studies that separate samples into these groups will help scholars and practitioners understand how normative beliefs are formed about what is appropriate in digital spaces, as well as understand how the process of retaliation can be stopped.

Research suggests that much of cyberbullying occurs outside of school (Smith et al., 2008), yet cyberbullying can impact the climate in schools as well. Cyberbullying messages are often shown or sent to youth who attend school together (Raskauskas & Stoltz, 2007). Moreover, because cyberbullying can take place anywhere that technology is present, home is no longer a "safe" place where bullies cannot reach their victims (Slonje & Smith, 2008). Being cyberbullied in your own home where teens previously felt safe has the potential to greatly exacerbate the effects of bullying behavior. In sum, though we are beginning to have a good understand of short term effects of cyberbullying, little is know about its long term effects, which is a clear limitation. This, and other issues, are discussed next.

Issues in Cyberbullying Research

Similar to the lack of longitudinal research, there is a general dearth of research on cyberbullying in general. In particular, more research is needed that links cyberbullying goals with specific forms of cyberbullying behaviors (see Figure 1). Doing this requires that researchers shift their focus from simply studying the medium (e.g., computer, cell phone) through which cyberbullying is taking place, to placing more emphasis on the messages themselves. Focusing on the messages will help researchers better understand the sender's goal or motivation in sending the message, as well as the specific effects particular message characteristics have on their recipients. By understanding what motivates a particular message or behavior, researchers can better design programs to prevent it; perhaps by presenting cyberbullies with healthy alternatives for achieving their goals. Similarly, more research is needed linking both the specific types of cyberbullying behaviors and specific victim characteristics with specific outcomes. For example, is there a way to predict which forms of cyberbullying or which types of victims are more likely to lead to suicide or homicide? Such specific information would be invaluable in helping assess the severity of a given cyberbullying situation and helping adults better identify when police should be contacted to intervene. Key to understanding the effects of specific forms of cyberbullying is having comprehensive conceptual and operational definitions when conducting future studies.

Technology continues to evolve at a rapid pace, and with each new development comes new opportunities to cyberbully. The evolution of cell phones into picture phones is one such example. Now, adolescents are "sexting" or sending sexual pictures or of themselves to romantic partners, who then distribute them to other teens. Changes in access to technology have also created new opportunities for cyberbullying. While the spread of technology is not problematic in and of itself, it can have problematic implications for parental monitoring. Often, children are more "tech-savvy" than their parents. Before parents can effectively monitor their children's use of technology, they first must understand how to use it.

As important as it is to help parents increase their monitoring skills, it is also important to encourage adolescents to report incidents to others, including their parents. Smith and colleagues (2008) found that about 44% of adolescents do not report incidences of cyberbullying to anyone. When they do report, it is typically to a peer, parent, or school official. Slonje and Smith (2008) found similar results in their study of youth in Sweden where 50% of victims did not report the cyberbullying to anyone. In addition, no one reported telling a teacher; however, 35.7% told a friend, 8.9% told a parent or guardian, and 5.4% told someone else. The researchers argue that adult awareness is a critical component of taking action against cyberbullying, particularly in school settings. Moreover, cyberbullying may be more amenable to reporting than traditional reporting. Some adolescents in the Slonje and Smith (2008) study cite the ability to save emails and texts as a potential way to address cyberbullying because the messages could be shown to adults as evidence.

Related to reporting, an additional issue is the way in which a cyberbullying inflicts harassment secretly (Li, 2005), oftentimes with complete anonymity. Depending on how technologically sophisticated a cyberbully is, it is possible to send aggressive messages anonymously. Ybarra and Mitchell (2004) argue that the anonymous nature of many forms of cyberbullying may make some people more likely to engage in cyberbullying who perhaps would not normally engage in traditional bullying because many social expectations become lost in cyberspace, leaving adolescents feeling less inhibited. Raskauskas and Stoltz (2007) argue that the anonymous nature of cyberbullying has the potential to cause even more psychological and emotional harm than traditional forms of bullying because of the power imbalance it creates. Without knowing who is doing the cyberbullying, the power of the victim to stop or prevent the cyberbullying is limited. Conversely, because cyberbullying removes the face-to-face element, cyberbullies no longer *see* the immediate effects of their behavior and may not be aware of the consequences it has on the target (Slonje & Smith, 2008).

SOLUTIONS AND RECOMMENDATIONS

As evidenced, cyberbullying is affecting adolescents in harmful ways (for a review, see Li, 2007). David-Ferdon and Hertz (2007) cite these effects as evidence that cyberbullying is an emerging public health issue that needs to be addressed. In fact, a special issue in 2007 of the *Journal of Adolescent Health* was sponsored by the CDC to provide an extensive review of literature, ethical dilemmas, and empirical evidence surrounding youth violence and electronic media. The central point of the issue argued for additional prevalence and etiological research on cyberbullying in order to support the progress and evaluation of effective prevention programs. In an online fact sheet about cyberbullying, the CDC (2008) reminds the public that although new technology has the capability to provide many benefits to youth, they underscore that "aggression is no longer limited to the school yard." Thus, the need for effective health communication campaigns and prevention programming in schools is paramount. The following sections review such strategies and programs.

CYBERBULLYING PREVENTION STRATEGIES

Though many researchers have not yet examined comprehensive cyberbullying prevention programs to date, numerous researchers have offered several potential strategies for reducing or preventing cyberbullying. For example, Raskauskas and Stoltz, (2007) recommend the following: notifying police of any physical threats; not replying to harassing messages and logging out of any site immediately upon being harassed; saving harassing messages and showing them to a parent and/or the police; and guarding your contact information, including your cell phone number, email addresses, and online names used for programs like instant messenger. Some strategies were echoed by the adolescents in the study conducted by Smith and colleagues (2008). In order of preference, adolescents in this study suggested responding to cyberbullying by blocking messages, telling a parent or teacher, changing your email address or phone number, keeping a record of the messages, ignoring it, contacting police, contacting the service provider, asking the person to stop, or fighting back. While these strategies offer helpful suggestions, their potential is best realized in the context of a more formal prevention program.

CYBERBULLYING PREVENTION PROGRAMS

Some researchers have suggested using existing bullying curricula to address cyberbullying. Although existing bullying curricula represent a good starting place, this chapter has highlighted numerous challenges specific to cyberbullying, and interventions specifically aimed at its prevention are likely to be more effective (Smith et al., 2008). Underlying all prevention efforts is the need for schools to have clear regulations governing the use of technology. Some schools have tried to prevent cyberbullying at school by banning the use of cell phones. Such policies have been met with resistance by parents who want to be able to contact their child if there is an emergency (Raskauskas & Stoltz, 2007). However, numerous others steps can be taken to regulate technology use that stop short of banning any of the forms in their entirety. For example, Hinduja and Patchin (2009) suggest rules such as allowing computers to be used for approved educational purposes only and prohibiting using a computer to bring harm to anyone else. They also recommend banning specific web sites in schools, including MySpace and AOL Instant Messenger, both of which are commonly used to send cyberbullying messages.

In addition to policies outlining the appropriate use of technology, Smith and colleagues (2008) also recommend schools include policies explicitly addressing cyberbullying, as well as develop anti-cyberbullying materials and training manuals for teachers. Teachers need to have a clear understanding of what the policies are and how to enforce them. School districts have faced difficulties in implementing cyberbullying regulations due to their effect on freedoms of speech. Conversely, schools have also faced litigation for not preventing cyberbullying. Hinduja and Patchin (2009) provide an overview of notable court cases in this area with which educators in should familiarize themselves with when creating regulations. Once schools have clear policies and procedures in place, more substantive prevention programming efforts can be implemented.

Hinduja and Patchin (2009) focus specifically on preventing and responding to cyberbullying, beginning with the educator's role in preventing cyberbullying. They emphasize that before educators can effectively address cyberbullying prevention, they must first understand the nature and extent of the problem for their particular school. Hinduja and Patchin offer sample assessment questions that educators can use, such as "have you ever been afraid to come to school because of something somebody said to you online" and "have you ever been the victim of cyberbullying." Once educators understand the nature of the problem, the authors suggest educating students and staff as to the next logical step. Such efforts could take the form of school assemblies, bringing in specialists to speak, and implementing school curricula.

Limber, Kowalski, and Agatston (2008) have developed one of the first curriculums aimed specifically at cyberbullying prevention in grades 6-12. The curriculum is designed to raise awareness of cyberbullying and its effects among students and parents, equip students with the skills to use technologies respectfully and in positive ways, and provide students with information about how to give or seek help if they or someone they know is being cyberbullied. Comprehensive cyberbullying prevention programs should also include a parent component. Hinduja and Patchin (2009) recommend schools send letters to parents making them aware of what cyberbullying is and encouraging them to talk to their children about it. The authors also recommend that parents go online and monitor their children's activities. Lastly, they encourage discussion, and offer several talking points for parents, including asking their children what Web sites they usually visit, how they keep themselves safe online, and whether they have ever been contacted online by someone they did not know.

Given that cyberbullying takes place through technology, prevention programs should also utilize technology; especially given previous research showing that interactive technologies can be effective at modeling the effects of behavior to adolescents (Roberto & Carlyle, 2007; Roberto, Zimmerman, Carlyle, & Abner, 2007). It is also important to highlight that, though the Internet is often the site of cyberbullying, technology has many positive uses and can be a productive place to provide support for those who experience cyberbullying. Moreover, Ybarra and Mitchell (2004) suggest that teaching adolescents how to have control over their online environment could help empower them. Future research should continue to develop more interventions that are technology-based, given both its relevance to this particular topic and the persuasive effects of interactivity (see Fogg, 2003, for a review).

FUTURE DIRECTIONS

In addition to the need for more interventions, particularly those utilizing technology, there are several other important directions for future research suggested by the literature reviewed here. First and foremost, we highlighted the need for researchers to use consistent conceptual and operational definitions of cyberbullying across studies. Beyond the need for a consistent definition of what does (or does not) constitute cyberbullying, we also noted that few studies have documented the actual messages employed in cyberbullying episodes or have developed theoretical models that integrate predictors as well as outcomes of cyberbullying into a coherent framework. Future research should employ more qualitative methods that provide richer descriptions of the content of cyberbullying messages. Moreover, cyberbullying is a public health concern, indicating its reach extends beyond the domain of education and into other areas of life. As such, researchers in this area should work toward developing interdisciplinary research teams to examine cyberbullying more comprehensively. These, and other issues, remain to be addressed more fruitfully in the academic literature. The present chapter offers a point of entry for investigating each one.

CONCLUSION

As communication technologies evolve, the manner in which they are put to use by individuals continues to interest scholars and practitioner alike. In the present chapter, we focused on one specific (mis)use, cyberbullying, which has received significant popular press, but only limited scholarly attention. Our goal was to offer a message-based approach to understanding the factors that influence the enactment of and outcomes linked to cyberbullying and its associated messages. By placing messages at the center of a model and reviewing literature on each category of factors, we offered one manner for addressing the need for a systematic approach to examining the message-related mechanisms that underlie cyberbullying.

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KEY TERMS AND DEFINITIONS

Cyberbully: A person who threatens or harms someone through the use of technology.

Cyberbully-Victim: A cyberbully who is him/herself also a victim.

Cyberbullying: The deliberate and repeated misuse of communication technology by an individual or group to threaten or harm others.

Cyber-Stalking: Repeatedly sending intimidating or denigrating messages, usually through a personal communication medium such as email or cell phone.

Cyber-Teasing and Cyber-Arguing: Messages that are not intended to harm another person, are not necessarily repetitive, and are performed in an equal power relationship (Vandebosch & Van Cleemput, 2008).

Flaming: Heated comment or argument which likely includes offensive language, generally occurring in a public environment (e.g., discussion board or chat). "Flamers" generally use capitol letters and visual symbols to add emotional intensity to their messages.

Pro-Active Aggression: Enacting aggression in order to achieve potential gains or benefits.

Reactive Aggression: A response to some provocation.

Overt Aggression: Direct aggression with the goal of inflicting harm on a target.

Relational Aggression: Indirect aggression employed with the goal of inflicting harm upon a target's relationships or social reputation.

Chapter 48
Virtual Research Communities: From International Patterns to Local Implementations

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ABSTRACT

This chapter considers virtual research community as a socio-cultural phenomenon and a new type of social computer-mediated interactions that originates as a consequence of individual choices and research needs. It argues that the virtual research communities bring together perspectives from macro and micro-socio-cultural influences, traditional culture-based characters of communication of academics and researchers and experiences that are historically rooted in local history or way of development. Furthermore the authors hope that the history of Russian Communication Association institutionalization and development will not only help to explore controversies and problems of local virtual research communities, but will also assist in better understanding of how international patterns of virtual communities could be successfully implemented in local socio-cultural contexts.

INTRODUCTION

Today there is much thinking about nature and features of virtual communities, their design and institutionalization (Nilesen, 2000). The interest to virtual communities as specific structures of social interaction in computer-mediated environment (Ginetsinsky, 1997, Webster, 2002, 10) does not only originate from their impact on the traditional understanding of professional communities and their social practices. It is also boosted by the ample opportunities they offer for innovative modes of computer-mediated interpersonal communication and collaboration of professionals, who have similar interests, needs and goals (Leonov, 2002) and want to work together.

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Similar to many other professional communities, the international research community has been influenced by technological boom and tremendous developments in computer and communicative technologies. This phenomenon was described earlier in the well-known papers of McLuhan (McLuhan, 1962), who studied the influence of technology (e.g. internet as a "global village") on human communication and the processes of overcoming communication barriers in time and space, which followed the creation of new telecommunication tools (so-called "technological determinism") (Griffin, 2000, 313). Later many other scholars stressed the impact of the internet on the effective development of the skills of the members of the virtual communities, highlighting its role in creation of "collective intelligence", which is coordinated by the members of the virtual community in real time and space (Levy, 1997) and in serving as a source of civic organizational involvement and new personal friendship, a synthesis of all the opportunities of modern information technologies, and group and individual forms of communication (Katz, 2002, 352).

On the one hand virtual communities manifested themselves as a consequence of individual choices and needs. Their origination and further social shaping came as a response to the increased need for innovative modes of communication (Meyrowitz, 1985) of individuals, who were not only competent to deal with rapidly changing events, but also possessed knowledge and skills to grasp issues and events well beyond their homes and national borders, to anticipate, understand and intelligently respond to them (Mazurek et al., 1999), to communicate, share and learn from others (Jankovski, 2007). On the other hand they represented a new socio-cultural phenomenon, an innovative type of varied social practices that were undertaken in the environment that was influenced not only by a complex of social needs, but also by social construction of technology (Barnes, 2003, 239, 330), i.e. by the process of mediamorphosis (Fidler, 2002).

Understanding a virtual research community as a social and cultural phenomenon allows viewing it as dependent on a number of micro- and macro-social influences and peculiarities. These could have both negative and positive impact. To illustrate, some researchers, who investigate the effects of the internet on society, criticize it for holding back the development of interpersonal communication, trust and destroying "the social capital' (Putnam, 2000; Wellman et al., 2001; Katz, 2002, 117). Therefore, virtual communities are sometimes perceived negatively as communities that lack stability (Beninger, 1987; Katz, 2002, 114), individual culture and are unable to substitute the traditional one (Van Dijk, 1999; Huff & Syrcek, 1997; Katz, 2002, 117).

Positive perceptions of virtual communities are linked with the impact of the environment of virtual interactions that allows communicating (reading and writing e-mails, reading and writing messages on the forums and discussion boards, reading circulars and responding to them, etc.) synchronously and asynchronously, publicly and privately with a variety of tools (Scully, 2008), that range from e-mail (Tomlinson, 1972) to newsgroups, Usenet (Ellis, Truscott, Bellovin, 1980), mailing lists, BITNet (Fuchs, Freeman, 1982), IRC (Oikarinen, 1988), WWW (T. Berners-Lee, 1989), first social nets (classmated.com), blogs, podcasts, Wiki, and Web 2.0 (citied in Rozina, 2005).

Strong impacts of technology on the virtual communities make scholars tend to focus their research endeavors on them. Doing so, they usually support their reflections with some generalized references to historical processes of virtual interaction or fragmented descriptions that follow from one culture to another, from one social group to a different one, from mass media to mediation (Baym, 2007, Bermejo, 2007, Katz, 2002, 7, McQuail, 2007, Rosenberg, 2004, 589). As the effects of technology on virtual communities are added by socio-cultural factors, including traditional patterns and the character of interactions, specific social and cultural experiences, histories of virtual communities, which have embraced more cultures and social groups (Wood, 2001; Rozina, 2005), still need exploration. It is in this light that the Russian Communication Association is presented in this chapter which explores typical features of the virtual research communities through the prism of local culture values, traditions and manifold factors that have both positive and negative effects on their institutionalizing and sustainable development.

BACKGROUND

For the virtual research communities similar to other communities that institutionalized in internet, innovative media and qualities of communication acted as a catalyst for starting off. These technologies provided traditional research communities with the opportunities of quick interactions in real time. Following the patterns of traditional research communities, the virtual ones are created and supported by the researchers, and are grounded in common research interests, needs, good personal relationships and community self-confidence.

Having the same identities as researchers, the members of the research communities are motivated not only by their willingness to pursue research, but also to communicate openly their research findings and procedures within the community, to a broader community and to the public. In contrast to the traditional research community the virtual community of researchers does not adhere to the territorial (Brown, 2003) principle of communication. It is a new “symbolic” type of interaction (Voyskunsky, 2000, p.106; Barnes, 2003, p.154) or a type of computer-mediated communication (Wood, 1992).

A large body of research has demonstrated from different perspectives and approaches (e.g. Socio-Psychological Tradition (C. Hovland), Cybernetic Tradition (N. Wiener, C. Shannon), Rhetorical Tradition (Aristotle, Demosthenes, Cicero), Semiotic Tradition (I. Richards, C. Ogden, F. Saussure), Socio-Cultural Tradition (E. Sapir, B. Whorf), Critical Tradition (M. Horkheimer, T. Adorno, H. Marcuse), Phenomenological Tradition (C. Rogers) (citied in Griffin, 2000) that virtual research community as a specific type of communication is a primary process, which coordinates logical practical performances of human beings. These performances (e.g. interactions, transactions) in the case of the virtual research community are completed in computer mediated environment by means of various computer and communication technologies (local, territorial and global).

Computer and communicative technologies equip the researchers with various tools. These tools allow their communicating with anyone, anytime and anywhere, individually and as the members of the groups, and shape various types of communication processes in accordance with their temporal and spatial parameters. For example: 1) one time/one place: local net programs, chats (Internet Relay Chat, IRC); 2) one time/different place (synchronous technologies): programs for simultaneous joint work in computer networks, Internet-paging and ICQ, Internet-telephones, computer audio and video-conferencing; 3) different time/one place (interactive technologies) - Web-based forums, Discussion Groups/lists, guest books, questionnaires; 4) different time/different place (asynchronous technologies): e-mail, mailing lists, newsgroups, etc.

On the socio-cultural level the virtual research community supports current research interests, practices and needs of its members, manages their interactions in computer-mediated environment (Rheingold, 1996; Barnes, 2003, p.226; Thurlow, 2004, p.107) and further promotes the idea of scholarly culture as shared values, beliefs, rules of behavior and communication. Therefore the preferred types of communication within the virtual research community (Beebe, 2002, 336) are not limited to personal communication (intrapersonal and interpersonal discussion). Group communication, audio communication, teleconference, list serves, discussion groups, email are widely practiced as a contribution to the community current functioning and further development.

On the institutional level the virtual research community focuses on urgent research issues and goals. It also sets the conditions for interacting within and outside the community as a system, and facilitates the activities the community is engaged in to achieve its goals and objectives. The measures taken by the community on this level should make the community more valuable and more attractive for every individual within the community.

On the individual/personal level the virtual community of researchers gives its individual members the information they want, provides the situations in which they improve their skills (e.g. research, communicative, computer, etc.) and are involved in more activities. User-centeredness is indicative of the virtual research community. It is substantiated by the primal focus on the needs of each individual member of the group, especially information needs. It is also inferred from the efficiency of immediate communication and information exchange within the community, which members have broader access to information resources and more availability for dealing with the information search, browsing, and navigation. Finally we can argue the cost effectiveness of the virtual community, especially when the original locality of the community is big, and the sense of immediacy is more important than the sense of locality.

The provision of free, voluntary and spontaneous communication in real time and space has always been one of the major concerns of the researchers. Interactions were restricted due to limited communication tools which did not stimulate constant dialogue and exchange of ideas. However, the developments in communication tools and services (e.g. e-mail, Web-sites, mailing lists, forums, etc.) have not only eliminated "time-outs" but have also widened the area and sphere of communication. Due to that the researchers have started to communicate more frequently, collaborate during the inquiry/feedback processes and participate in stimulating research projects thus contributing to rapid exchange of information, results of the research and practice.

The situations when the researchers, who are increasingly distributed across countries and even continents, could be engaged in on-going interactions, that are flexible in time and place, have never been practiced by the majority of researchers before. Therefore computer-mediated communication of the researchers is very favorable, especially with those members of the research communities who have been affected by rare opportunities to attend national/international meetings and contact with peers, long distances, poor accessibility to information resources, and research projects. While almost all the interaction could be done in a computer-mediated environment, it no longer depends on travel and the need for face-to-face meetings. Therefore, travel costs and time spent away from home and work are substantially reduced.

Computer-mediated communication among the members of the virtual research community provides them with additional insights as to how other researchers work and how they handle and respond to research problems. Consequently further developments in interpersonal, interdisciplinary and intercultural contacts within the virtual research community are found to be a source of pleasant, easy and stimulating interactions. Likewise, the virtual research community, as A. Etzioni (1993) contends, becomes a "place in which people know and care for each other" (p.31) and "balances both diversity and unity (p.122) in global and local social and cultural contexts.

VIRTUAL RESEARCH COMMUNITY IN LOCAL SOCIO-CULTURAL CONTEXT

Exploring Controversies and Problems

A number of socio-cultural contexts and factors (Mavromoustakos, S., Andreou, A., Papanikolau, K., 2007) can either delay/prevent the progress of the virtual research community or provide additional mechanisms/features for fostering the sense of community among the researchers and their effective adaptation to a virtual environment in spite of overriding research, cognitive and professional motivations. As reported in a study by Gorbachuk (2005) inequality of resources, tools, services and other opportunities for providing effective communication is still one of the problems. "Digital divide", together with numerous psychological barriers (Tuzlukova, Wang, Afanasieva, 2004), financial problems, administrative, organizational (Polat, 1998) and linguistic challenges does not allow for maximum use of the virtual environment.

Advocates of the socio-cultural approach hold that the virtual community is a "type of social action" and "communicative activity" (Rozina, 2005) and a "type of communicative relationships" (Radovel, 2004). These relationships change and grow with the development of the community. They are also strengthened by the demand of the global and local societies, as contended by Polat and Moiseeva (1998), in independent acquisition of abilities and skills for flexible adaptation to the changing realities and styles of life. These are the skills to think independently and critically, competently work with information and openly socialize in different groups. To exemplify aforementioned, we'd like to describe briefly the history of the Russian Communication Association.

As stated above, the history of any virtual research community is inseparable from the development of global computer networks and the need for enhancement of cross-cultural communications of researchers and educators worldwide. The aim to create the Russian Communication Association was to give more opportunities for Russian scholars who teach communicative disciplines to learn more about the current development of theory and practice of communication and to collaborative with their peers worldwide. Moreover at late 1990-s it became evident that for such a big country as Russia, which had lots of research traditions and achievements, the use of information and communication technologies was a necessity. This was acknowledged both at state (e.g. national programs and schemes for science and research informatization, computerization and modernization, etc.) and individual levels, e.g. for further integration of resources, knowledge, experiences and competences in the field of communication studies.

The Russian Communication Association started from the stage of intrapersonal communication, when one person (one of its future leaders) initiated a feasibility study aimed at launching a virtual research community using the experience of similar communities and professional associations. This stage was followed by the stage of bilateral interpersonal communication which involved two people who were ready to take some practical steps for the formation of the community, and later by the stage of group communication. It could be described as a stage of combined initiatives of quite a big group of people to foster the creation of the community. They managed to form small groups in accordance with their research interests, computer skills and personal relationships. This allowed the members of the small groups to jointly discuss the ambition goals of the research community, to formulate its mission and objectives and to communicate these to the whole community at the stage of organizational communication.

The structure of the "communicative relationships" has no restrictions as to the number of the members, which complete vertical and horizontal communication (Yakunin, 2000, p.105) within the virtual research community in the most effective way. These stakeholders are the leaders of the association, members of the coordination board, facilitators of virtual discussions and research seminars, designers, database creators, Web-masters, moderators of discussion lists and mailing lists, reviewers, editors, translators, etc. Sometimes these roles may be performed by different people and sometimes by the same people. This follows from the fact that these roles are not permanent and attain different qualitative (demographic, social, cultural, etc.) and quantitative characteristics in various communication processes. This flexibility of roles provides the situations when the members of the community can act as individuals, members of a group and a social institution.

The openness of the computer-mediated environment adds new parameters and characteristics to the socio-cultural and socio-demographic portrait of the member of the virtual research community. In his study, Lapin (2000) characterizes them as “subjects of action”. In a study by Akhiezer (1997) the results revealed that it is possible to describe generally the members of the virtual communities as active personalities and “variable bio-socio-cultural subjects”. The axiological, social and ethic characteristics of these subjects depend on a long-term socio-cultural context. Some of the influential parameters of this context, as reported by Barnes (2003) are types of environment (geographic, demographic, city, rural area); socio-attributive individual characteristics (age, gender, education profile, marital status, and place of residence); conditions of socio-spatial localization; socio-ethnic characteristics and socio-psychological conditions of micro and micro level (tolerance, mobility, socialization).

Socio-historic, socio-economic, socio-cultural and socio-demographic parameters of a virtual community have a certain impact on the new roles of its members, which are performed when they communicate with each other within the community and with the environment (Slastenin, Kashirin, 2003, p.383). Together with various research, personal, professional, cognitive, and other motivations (Kashkin, 2003, p.64) they influence the choice of the roles, scope of responsibilities and functions (Arestova, 2000; Shadrin, 2002, p.106). For example, any role in the virtual research community has certain responsibilities. In the Russian Communication Association the leader and the members of the administrative board are responsible for communicating with the other research communities, initiating discussions on the challenges and problems of the community, preparing progress achievement reports, clarifying tasks, objectives, mission, notifying about the coming events, providing effective vertical and horizontal communication. Unfortunately at the beginning the horizontal communication in the Russian Communication Association was not as effective as the vertical one. The most substantial flow of information was provided by the leader and by the board. Probably there was not enough acknowledgement and additional stimuli for self-respect which, as reported in the study by G. Suler (cited in Voyskunsky, 2000, p.109), are very important for the members of the virtual research community.

The equality of each member of the virtual research community (See, for example, the study by M. Chuchkevich on power weakening in computer-mediated communication and the characteristics of net organizations in Shadrin, 2002, p.106) constitutes one of its organizational principles. Koltunova (2002, 238) and Slastenin (2003, 406) report that social status (official positions, titles, age, etc.) plays a far less important role as the organizational principle and authority factor for the virtual communities (Lemus, 2004, p.304; Miller, 1999, p.288; Wood, 2001, p.74) in comparison with the traditional organizations and groups. As it is reported in the research by French and Raven (1959), there are five types of status: expert power, legitimate power, reward power, referent power and coercive power (cited in Mottet et al., 2006, 119).

Interestingly, though the status representation in the Russian Communication Association (Beebe, 2003, p.338; Makhovskaya, 2003, p.136) has always been minimal, but this has not much enhanced or strengthened the horizontal communications of the members of the research community. The examples of some impact of status representation are mainly of research status. Communication with prominent scientists (mainly from big cities like Moscow or St. Petersburg) was more vibrant as the other members of the community approached them more frequently for research remarks or comments, competent statements, etc. This was enhanced by the genuine interest in their publications, answers to their questions or follow-up to their research results, etc. So we think that it is important not to completely ignore the factor of the social status of the participants of communication within the virtual research community.

In our opinion the insufficiency of the information about the social and status distance (Larina, 2003, p.32) can lead to conflicts in a research community followed by the withdrawal from the community, cessation of the subscription and other actions that are described in the research of behavioral environments of minor social groups (Astleinter, 2000, p.343; Rosenfeld, Berko, 1990, p.196). Ignoring the factor of the social status might also lead to the creation of artificial (Karasik, 1992) virtual structures and organization.

The process of the institutionalization and functioning of the virtual research community has some features that serve for its identification as a specific type of socio-cultural group. For example, the naming of the virtual research association not only creates a symbol of the identity (Steedy, 1996) of the community, which designates a special domain, research interest or conceptual life (Reyes, M. et al., 1993) and expresses in a concentrated way particular social and cultural contexts (Kostomarov, 2001), it is also a joint activity of co-thinkers and enthusiasts and a tool for uniting researchers under the name of the community.

Rozina (2005) claims that the style of communication within the community and with other communities and research associations is another significant feature as different rules and regulations of formal or informal management, tools and techniques of flexible interaction affect each current member of the research community. Furthermore, the chosen style of communication in the long term significantly affects the way the community operates (e.g. attracting new participants, etc.). In a way it also guarantees the provision of regular or periodic contacts (Barnes, 2003, p.230).within the community and/or with other research communities that focus on joint projects and/or events.

To produce the communication style that fits the members of the community it is suggested that the instruments and tools for feedback and monitoring the association activities should be incorporated in the forms of surveys, questionnaires, Web-based interviews (Rozina, 2005). Annenkov (2003, p. 7) contends the importance of documenting and storage of the electronic or net discourse content on the research community net address. This could be easily accessed by each community member at the stage of establishing relationships between "messages and people" (Patarakin, 2004, p.17) and for the purposes of the on-going analysis of the progress of the community. For example, the website of the Russian Communication Association (http://www.russcomm.ru/eng/) played a very important role in the institutionalizing of the virtual research community and in the way it was organized and functioned. On this Website one can find some general information about the community, an update on the events in the field of the Communication Studies (conferences, seminars, workshops, etc.), some personal data of the community members (publications, research interests, etc.), book/projects reviews, ideas for new projects, etc.

Shadrin (2002) contends that the effectiveness of the social and cultural context of communication within the virtual research community is affected by some "net key-factors". These "net key-factors" are categorized by Shadrin (2002, p.107) as user-centered factors and system-centered factors. Both factors matter for the community as they address individual and community wide needs and aspirations. User-centered factors include the importance and attractiveness of the chosen topic to all the members of the research community; the activeness or passiveness of the members and their expectations about the results of whatever they do in the community; effects of the discussions as for the opportunities for further publishing, and some others. Among system-centered factors are regulations (scheduled dates, length of the event, project deadlines, etc.), the characteristics of the services, technologies, procedures which are practiced by the community, including their availability, accessibility, friendliness, etc.

Some obstacles or barriers (Johansen, 1988, p.140) that prevented the virtual research community from achieving its goals or delayed some of the initiatives were similar to those of traditional communication (Borozdina, 2002, p. 32). For example, psychological barriers, which were perceived as counter-suggestions [as opposed to suggestions, and influence, according to B.F. Porshneva (citied in Pugach, 1994, p.159)]. Because some of the members had some psychological difficulties or problems, they began to avoid any extra information or extra activity. These difficulties were caused mainly by misunderstanding of the content of the messages, personal remarks, comments in e-discourse and interpersonal communication. Sometimes they arose from a too strong influence on the part of authority that effected decisions, opinions, behavior of the members of the community and the way they participated in the events of the community.

Another set of barriers that caused concerns and controversies stemmed from "digital divide" viewed as the problem of accessibility only for the users with permanent Internet access and excellent computer and Internet-skills. On the one hand, the virtual research community inhibited its efficient operation by experiencing "digital divide" as this brought about less participation in events, curtailing some social interactions and initiatives. On the other hand, it was challenged with the additional measures for building "digital bridges" (Barnes, 2003, p.292; Katz, 2002, p.17). Interestingly, one of these "bridges" was the enhancement of the prestige of electronic publication that had not established the same reputation as traditional printed journal articles. Still undecided and in need of further investigation are the socio-cultural challenges (Radovel, 2004) that prevent the members of the virtual research communities from communicating and working together. One of the reasons to claim so is the feedback that the Russian Communication Association constantly received from its members. For example, the responses to the request to list the difficulties they encounter in communicating, mentioned constant lack of free time due to job (research and teaching) and home responsibilities, financial matters, low skills as computer and Internet users and some administrative and organizational matters within the community.

IN SEARCH FOR SOLUTIONS AND REMEDIES

In search of solutions in overcoming some barriers and obstacles the examination of the responses was undertaken. It allowed a more thorough consideration of some basic operational principles of the virtual research association. The mini study was conducted to identify the principles that are likely to bring some positive change to the association. A list of principles was presented to the members of the community. On-line discussions, e-mail correspondence and some reflection on the responses identified some principles that mirror the concerns of the members of the community and serve as indicators for the issues to be primarily addressed. These are the principles of personalizing and individualizing, addressing the needs of each member of the community, increasing motivation, providing opportunities for learning with the other members of the community and other communities, matching the content of communication with the immediate and long term objectives of individual members and the community, constructing the environment of the communication that serves as a source of research support, its stimulation and motivation.

Another remedy that has been suggested in earlier research by Slastenin (2003, 357) is attention management. This approach implies repetition of the information; rhythm obtrusion (frequency of e-messages and feedback), direct and indirect accentuation and focus on most important issues and tasks, etc. The major finding of this study indicates that achieving the necessary integrity of communication processes within the community is rooted in overcoming psychological uncertainty and solving the problems of equal and adequate transfer of information by each member of the community. The case of the Russian Communication Association suggests a very interesting case study to exemplify this finding.

Institutionalization of the Russian Communication Association (RCA) was encouraged as a bridge that would connect scholars in Russia and internationally who implemented Communication Studies Discipline or its components in their universities and were interested in the broad spectrum of communication. Taking into consideration the vast territory of Russia itself, this mission could only be accomplished on a broad base of integrating traditional experience/knowledge/expertise of collaboration of researchers and innovative technological instruments and tools. This integration allowed for many possibilities both at the very early stages of giving the Association its formal structure and later at the stages of its growth and improvement.

One of the first initiatives of the leaders of the association was to invite some scholars from local universities in Russia to join it. These people had some fresh vision on communication as a discipline. They were also very enthusiastic to share their expertise and ideas. For this purpose the mailing list was created in 1999. The mailing list has been and is still is one of the most powerful instruments of collaborative practice of the virtual research community. This has been proved by the data obtained from the analysis of its operation since the time of creation.

Later the virtual environment of the research community was added by the Web-site. The Web-site was created on a voluntary basis by the members of the community and launched in April 2003 (http://russcomm.ru). The initial pages of the Website included current news in communication area, library of resources (e.g. published papers, dissertations, etc.), communication areas relevant links, project announcements, personal pages of well-known scholars, etc. Due to many reasons rooted in access problems and site navigation, the design and development of the Website has been often challenged by many tasks. It was important to make it user-friendly, easy to search and navigate and popular among the community members. Successfully managing these tasks the RCA Website became the finalist of the Russian Language Information Library Resource Award "New Era" in December 2005 (http://www.russcomm.ru/rca_news/2005/2005_12_05.shtml) and was recognized as one of the top ten Russian Websites on Education and research (Hotlog and Mail.ru long-term data).

In addition to this some innovative projects have been launched that involved all the members of the virtual research community. The list of these projects included "The Best Book Award' (http://www.russcomm.ru/rca_projects/bookcomp/, 3rd in this academic year); "Vestnik", t he Annual Bilingual Journal of the Russian Communication Association; The Russian Journal of Communication (http://www.russcomm.ru/eng/rca_projects/rjoc/about.shtml), ICA journals abstracts and synopsis (http://www.russcomm.ru/rca_projects/ica/, the formation of the Post-Graduate Students-Translators Groups that united young community members from Moscow, Volgograd, Voronezh and Khabarovsk). What was innovative and original about these projects? First of all, it was that they involved not only the members of the association, but also the researchers from other countries and disciplines. Secondly, they contributed to creation of specific groups within the community to utilize better skills and abilities of the members of the research community (e.g. Editorial Boards, Reviewing Boards, Collaborative Groups, etc.).Thirdly, they assisted the effective adjustment of new technologies and tools for providing the collaboration of a big team of researchers for elaboration of ideas, writing instructions and guidelines, searching for specific scholars and inviting them to participate in certain projects, analyzing current problems and overcoming challenges and barriers.

Recent developments of the research community were catalyzed by Web 2.0, which followed the old interactive Internet-services (e.g. contact e-mails, forms, mailing list sites, news subscription, onsite search, site visitors' counters, etc.). The latest projects (e.g. Discussion Groups on Google and Profesionli.ru; Events Photo Albums Gallery on Google Picasso; some issues of the Online Journal "Educational Technology and Society" on http://ifets.ieee.org/russian/periodical/journal.html, etc), assisted smooth transfer from the interactive situations of communication to real collaborative ones. This was proved by the data, which were obtained as a result of monitoring the opinions of the members of the research community. It was also identified that the latest interactive programs and services have a great potential for providing the researchers as members of the virtual community with more effective exchange of ideas, data and links and to find help, assistance and understanding from their counterparts. Circumstantial confirmation of this is increase of the number of applications from the virtual research community members for conferences, seminars, journals papers, and Book Awards Nominations.

THE SCOPE OF FUTURE TRENDS

Future progress of virtual research communities will be undoubtedly determined by further developments in information and communication technologies. These will mitigate the circumstances of limited access to resources and face-to-face interactions, consequently ensure the enhancement of research and create new meaningful perspectives, in which each member to a greater extent will personally make decisions about which technology to use and when, and will more actively participate in the development of the community and its progress. Therefore acknowledging "the human element" (Jaaffar, 2002, 3) in virtual communication should be viewed as a priority.

Our prevailing assumption underpinning the perspectives of further research of virtual research communities is that technological and socio-cultural aspects should be studied and described together. While promoting a computer-mediated environment, which is related to the research interests and professional needs of the members of the virtual community, the unique insights of every member should be perceived and approached as valuable both for the current practices and future operations.

Successful functional "adaptation" of the communicative processes to the personal and professional needs of each individual member within the community is likely to bring creativity and provide insights that apply to the way which extends the "boundaries" of the community, and to contribute to the creation of social nets of a different kind and to cross-border communication in its various forms and contexts.

CONCLUSION

The value of the virtual research community is in free, open, voluntary and spontaneous communication in space and time; encouragement of on-going interactions of the researchers who are spread unevenly over countries and continents; elimination of "time-outs", contribution to rapid exchange of relevant and useful information, facts and the results of the research; establishment and maintenance of cross-disciplinary and cross-cultural relations within a broader research community. As a consequence of all this the potential of the virtual research community could be defined as high and promising.

In thinking carefully about some obvious and noticeable limitations to the progress of the virtual research community we perceive some technological and socio-cultural challenges. The virtual research community and its socio-cultural contexts are inseparable. In particular, this is proved by the fact that some local factors can either enhance the communication and make it valuable or place some hindrances before it.

The design and the way of how the virtual research community operates are the social, cultural and personal preferences that people share and state. Therefore, there is a greater feeling of liking (within some virtual research communities) for traditional, historically grounded, patterns and processes of communicating than those that are provided by the technologies. This factor is often added to by some organizational concerns, technical problems and psychological factors.

Easier and more effective adaptation of the members of the virtual research community to previously unknown practice of communication could be achieved if a friendly, cooperative and sympathetic atmosphere is built, the community is regularly provided with the information to keep it working and each member receives help and support through the initiatives taken and the ideas expressed.

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KEY TERMS AND DEFINITIONS

Computer-Mediated Communication: is communication in electronic environment, communication mediated by computer.

Information and Communication environment: is an environment of social interactions in computer networks.

Net Key Factors: are some communicative and socio-cultural factors that influence the effectiveness of communication within the virtual research community.

Research Communication: is one of the basic mechanisms that provides the scholars with the opportunities to exchange ideas, results, best practices and experiences, therefore contributing to further development of the science and sustainability of the dialogue among the researchers.

Virtual Community: is a type of community that originates and operates in computer-mediated environment as a group of net-users who have similar interests, needs and goals.

Virtual Research Community: refers to a type of a social community, which practices computer-mediated communication, manifests itself as a consequence of individual choices and research needs, and unites scholars, who share common research interests, needs, inspirations and intentions.

Chapter 49
A Pragmatic Approach to Analysing CMC Discourse

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ABSRACT

A co-operative learning task relies on the mutual interdependence of group members to achieve their task goal. Where the task involves conceptual learning, this also involves argumentation and the development of joint frames of understanding. The main aim of this research study was to understand how postgraduate students conveyed their meanings and how they managed their group interaction in asynchronous online conferencing. The chapter explains the development and use of an analytic framework, based on Conversational Analysis and neo-Gricean theories of conversational meaning, to examine, code and describe the discourse behaviours and discourse strategies of postgraduate students when engaged in co-operative learning tasks in an asynchronous and text-based, online conferencing environment. The analysis indicates systematic patterning in the ways participants compose their messages and in their use of specific discourse strategies to manage the interaction of the group process and of the discussion of the conceptual material.

INTRODUCTION

Computer mediated communication (CMC) discussion forums in the form of a multi-party, asynchronous, text-based communications environment are now an embedded part of many Higher Education (HE) courses, and are a familiar feature of Virtual Learning Environments. Over the years a base of knowledge has been developed about the kinds of group processes that contribute to the development of online learning groups, and about the kinds of activities and task structures that support online group discussion. However, less is known about how HE students in taught online courses manage their interactions with their learning group and with the subject content through their talk.

A well-designed and carefully structured online course which creates the conditions for, but does

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not prescribe, certain kinds of learner interactions with each other and with the conceptual content of the subject area represents a different communications context than face-to-face or loosely (or very highly) structured discussion forums. In the latter contexts contributions often tend to be either cumulative in nature or follow a question and answer rhetorical pattern. The key features of the altered structured, educational CMC context are:

The design of the course and the online environment- the design is the architecture of the environment and so creates the conditions for certain kinds of interactions to take place between people and with respect to their engagement with the conceptual content.

2. The process pedagogy – typically a social pedagogy or a collaborative learning pedagogy with respect to the organisation and management of the groups. In higher education contexts this often involves a sharing of the responsibility for the process management of the learning process between the course tutor and the participants on the course.
    1. The discussion as a collective text- when the transcript is perceived as a collective text this filters the rate and distribution of messaging, giving more prominence to reflection on what already exists, deliberation on the purpose and impact of one's contribution and deliberation on one's positioning of the contribution, in terms of both the speaker's epistemic stance and how ideas are linked across messages.
    2. An altered learning space- the discussion forum is the point of social learning, where the Cognitive processes triggered by collaborative engagement occur (Dillenbourg 1999). Further, due to the altered physical and temporal relation of the participants to each other there is another overlapping space for individual reflection which feeds into and out from the shared dialogic space.

Learning and thinking together within this type of environment to arrive at the groups' learning goals requires a diversity of skills. But above all else it relies on students' use of language to co-ordinate their group process and their thinking (Mercer and Littleton 2007, Wegerif 2007). The aim of this chapter is to discuss a method developed to examine:

What discourse strategies do students use to manage their interactions and learning in a computer supported co-operative learning (CSCL) environment?

BACKGROUND

CSCL as a Context

A structured, extended CSCL course is a social and communications context with its own distinctive features. This can be broadly described along two dimensions. Firstly, through a description of what has been established about conversation management in CMC contexts. Secondly, through a description of the types of social environment created within a co-operative learning paradigm.

Language Behaviour

Participants in a CSCL course have two main goals. One is to jointly arrive at a cohesive and coherent approach to the task through managing the flow and structure of information into the group discussion. The other is to negotiate their meanings through their messages to attain their interactional and learning goals.

Managing the structure and flow of information within the group relies on their management of the conversational structure and the maintenance of cohesion and coherence across messages. The conversational structure of a managed online learning group discussion differs from that of other more individually biased CMC media, e.g. blogs. The learning group are more likely to take advantage of the threading facilities of conferencing software. This facility allows participants to contribute a message at any stage of the transcript, by using the reply function, thus crossing time boundaries, and creating clusters of topics in the transcript. If managed well by skilled discussants, the clusters remain tightly organized and independent of each other. However, frequently replies to earlier clusters are distributed throughout the text, resulting in a confusing, non-linear, multi-topic, multi-braided transcript, where the coherence and relevance of physically adjacent messages is a matter of chance rather than design.

Adjacency pairs are also an important strategy in managing the conversational structure. Crystal (2001: 148) argues that in the typical contextual conditions of asynchronous group CMC, there can be no turn taking and hence no adjacency pairs. This argument is based on the traditional view of turn taking as embodied in and inseparable from the speech acts of adjacency pairs. However, although there is no real turn taking in asynchronous electronic discourse (Davis and Brewer 1997:28), there is interactivity and continuity and previous research suggests that this interactivity is achieved mainly through adjacency pairs (Condon and Czech 1996, Herring 1999). The issue is how users have adapted the ways they use adjacency pairs to the CMC context.

One adaptation is to create the illusion of adjacency when the three parts of the adjacency structure are stretched across a span of messages. This can be done in a variety of ways including direct cross-reference to an earlier message, or by use of quotation or paraphrase of a section of an earlier message. Repetition of titles or of key phrases is particularly prevalent (Davis and Brewer 1997:130). Another example of the adaptive use of adjacency pairs is the technique of encoding an invitation to respond as the first part of an adjacency pair, typically a request for feedback or an open-ended question. This technique is a standard means to invite interactivity in the group (Salmon 2002a: 101) and it is so common that Condon and Czech (1996) were able to create a typology of adjacency pairs used in this way by online groups in decision-making tasks.

Cohesion and coherence is maintained through a variety of means. Davis and Brewer (1997) identified three such strategies which have an "orientation" function. The purpose is to orientate the audience towards the goal of the interaction and to ensure that the schematic frames being used by the group members to accomplish the task are both appropriate and shared. The first is the use of titles. Message titles in electronic discourse are indexical, as they set expectations about the content and discourse style of the text. Thus the title is used both to attract readership (Crystal 2001:140) and to provide a permanent reminder of the message content in the transcript, which participants use as a reference point for writing their own messages. Davis and Brewer's second type of orientation strategy is the use of rhetorical questions. They identify several different functions associated with rhetorical questions and the overwhelming principle is their use as a framing (or predictive) function to guide the reader's interpretation of the message content or to control the discourse. The third strategy type is repetition of the macrostructure of a previous message. This involves repeating the narrative structure and rhetorical strategies of an earlier message, but inserting one's own content.

Other common means of maintaining cohesion in the text and thus coherence in the conversation are cross-referencing (including anaphoric referencing) and various forms of lexical link between messages. Simple repetition is relatively unusual and the full panoply of lexical variation associated with Halliday's "reiteration" is represented (Halliday and Hasan 1976). This includes synonyms, hyponyms, nominalizations, super-ordinates, and antonyms.

The second main communication goal is to negotiate meaning to achieve the desired effect and outcomes. This goal operates at the level of the individual and the group. The key difference in the turn-taking systems of oral dialogue and text-based CMC, is that in CMC contexts, both the interpretation of a speaker's meaning and the development of the conversational topic are determined by the uptake and responses of the recipient(s) of the speaker's message. The original speaker has no preferential means to select the timing of the next turn or to select the subsequent speaker, and the choice of uptake lies with the response.

This type of constraint would lead us to expect that messages in an online discussion forum would be formulated to be highly explicit and unambiguous in the way meaning is conveyed. Yet, three studies (Collot and Belmore 1996, Ferrara et al 1991, Davis and Brewer 1997), all of which used Biber's (1988) factor analysis model to describe the register of CMC discourse, would indicate this is not always the case. Collot and Belmore's results show that electronic discourse most closely resembles the genres of letter writing, with the full range of variation between personal and professional correspondence. Davis and Brewer observed the closest match in Biber's genre of professional letters

CSCL AS A SOCIAL LEARNING ENVIRONMENT

Co-operative learning group work is organized to achieve two main instructional purposes. The first is to provide enhanced learning opportunities through discussion around joint problem-solving activities. The second is to promote reciprocal activities that support learning, such as peer tutoring and peer modelling of target behaviours. The outcome of the cooperation is an outcome that could not have been achieved by individual action alone (Dillenbourg 1999, Hiltz 1994), whether measured in terms of learning gains on assessment tasks (Slavin 1996) or in terms of other outcomes that are the direct product of the group interaction, such as development in reasoning skills or increased fluency with the concepts and terminology of the subject.

The view taken in this chapter is that co-operative peer interaction can lead to private conflict resolution though the mediation of talk and other forms of social interaction in the group (see Howe and Tolmie 1998, Williams and Tolmie 2000). Moreover, their research study reports on the incubation period observed in students' development of conceptual understanding or conceptual elaboration as a delayed effect of co-operative peer discussion (Howe et al 2005). An asynchronous online peer group, which does not force synchronised participation and interaction within the narrow time frame of a classroom activity, supports conversation and further enquiry during this period of incubation.

There are a range of different approaches to co-operative learning. Some of the most prominent and influential include Slavin's (1996) Student Team Learning model, Johnson and Johnson's (1994) Learning Together model, the Group Investigation model and McConnell's (2006) model of a cooperative leaning community.

As a broad overview there is agreement on the requirement for a shared goal for the interaction, for individual accountability blended with the mutual interdependence of the group members, a high degree of focus on the relevance of the task as a stimulus to meaningful peer interaction, and attention to group process. Where differences are found across models, these tend to be found in the approach to group composition (e.g. heterogeneous or homogeneous), the source of motivation (e.g. collective or competitive), the type and amount of structuring established within the groups and the allocation of responsibility for determining and implementing this; i.e. the degree of responsibility learners take for their learning group process.

SUMMARY

A CSCL discussion group is therefore a complex environment. In some respects it is an unscripted environment, in that it does not automatically follow the traditional triadic patterns and routines of teacher-led classroom interaction and nor does the group automatically have recourse to a procedure to follow. The conversation is the enquiry and the conversation is maintained by attention to group process. All of this is achieved through talk. The question is when online groups are successful how do they use their talk to accomplish this?

DEVELOPING CMC TRANSCRIPT ANALYSIS INSTRUMENTS -ISSUES

Although a number of relatively early attempts were made to develop schemes and frameworks for the analysis of CSCL transcripts (e.g. Gunawardena et al 1997, Henri 1992, Newman, Webb and Cochrane 1997), these met with only partial success, and have been difficult to replicate. Their contribution nowadays is to help to clarify the issues in the design of such schemes.

MULTI-DIMENSIONAL ANALYSIS

Henri's (1992) pioneering attempt to develop an analytic framework identified and explored the different dimensions of CSCL interactions. This is the complexity of the task, in that understanding how a CSCL group works together involves examining the social, affective, communicative and cognitive processes that drive and shape the experience. But investigating each of these dimensions in parallel can lead to working with a number of theoretical models and different analytic procedures simultaneously. Henri attempted to design her scheme as if these dimensions could be grouped together into a unity with a single set of analytic procedures applicable across the dimensions. However, in practice the incompatibilities between the underlying theoretical models lead to a lack of clear discrimination between the dimensions and the categories within them, with the result that when attempts were made to replicate the scheme the categorisation of data was often made on the basis of subjective interpretation (Gunawardena et al 1997, Hara et al. 2000).

Further, this is not an isolated occurrence, attributable to Henri's work being the first of its kind, but a prevailing issue (De Wever et al 2006) indicating the complexity and difficulty of the task. To deal with this in many studies the analysis of the discourse and the patterns of interaction are done separately, typically through using social network analysis for the interaction analysis but developing a customised approach to the discourse.

Yet, there are relatively few fully developed language and discourse based schemes for analysing CMC transcripts. Among the most prominent and widely cited are the TAT scheme (Fahy et al 200, Fahy 20051), the DISCOUNT scheme (Pilkington 1999) and the ESA scheme (Kneser et al 2001). The TAT tool consists of five primary categories based on the main types of interactive move that occur in an online discussion, e.g. questions, statements, reflections etc. Three of these categories are sub-categorised for finer analysis. The tool allows for a reading of the ways in which the discussion is built up across participants at the level of these moves, thus giving a fairly broad picture. But it does not provide information at the level of the how meaning is conveyed and interpreted, or how meanings become shared between the participants.

The DISCOUNT scheme is based within the framework of the Initiation- Response- Evaluation (IRE) exchange structure. Within each exchange the moves are categorised as speech acts and then further categorised according to sets of rhetorical relations e.g. cause-consequence, compare-contrast. The Exchange Structure Analysis scheme was developed following work on DISCOUNT, and focuses on the system of turn-taking within the IRE framework. The scheme plots the distribution of exchange roles across participants as a means to identify patterns in how the learning interaction is constructed between them. Both the DISCOUNT and ESA schemes allow for a detailed analysis of how the interaction is built up and developed through language choices. However, I would question the use of the IRE as the structural framework for the analysis of CSCL discourse. Both the CMC environment and the social context of co-operative learning lead to a form of conversational interaction that is likely to be more complex, more diverse and networked than the IRE structures that are typical of traditional classroom interactions.

UNIT OF ANALYSIS

A second key issue in the methodology of transcript analysis is defining the unit of analysis. Rourke et al (2001) identified five different units of analysis that are still prevalent in CMC content analysis schemes:

- Proposition unit
- Sentence unit
- Paragraph unit
- Thematic unit
- Message unit

Various kinds of difficulty have been reported with each of these units and there is no clear consensus on what might be a reliable unit of analysis. A number of these units, including the "idea unit", are difficult to determine other than subjectively. Alternatives, such as the speech act, the speech segment or even the thematic unit that attempt to draw on procedures to identify the proposition usually require an underlying level of complex analysis that is too elaborate to be workable and often requires highly specialist knowledge.

The sentence (Fahy 2001, 2005) and the paragraph are grammatical and textual units. However, while CMC interaction is conducted in a textual form this does not entail that this discourse is a genre of writing. Another alternative is to treat the message as the unit of analysis. This is the approach adopted by Gunawardena (1997) and the Practical Inquiry Model (Garrison et al 2005) and it is also the main unit used in this research study. However, due to the multidimensional nature of the analysis, different units of analysis may be required to focus on different phenomena (Garrison et al 2000:102).

MEANING

One of the main purposes of a content analysis is to arrive at an interpretation of the meaning of the exchanges and an understanding of how participants jointly construct new meanings and new perspectives on old concepts.

However, the meaning of an expression is not a fixed and literal phenomenon. Meaning is itself a construction between participants within a social and cultural context and related to a specific purpose. Participants in any conversation are constantly engaged in a process of interpreting meaning, guided by generic principles of conversation, systemic grammatical and semantic principles and their knowledge and understanding of the context.

Further, meaning and the ways in which it is conveyed and constructed through the course of a conversation, alters with changes in the nature and extent of shared experience between speakers, shifts in the speakers' goals, changes in the interpersonal and communicative context and a myriad of other ways. Where the task is to jointly explore conceptual knowledge, as is often the case in CSCL contexts, the meaning attributed to specific expressions is liable to change progressively at the level of group use, and to vary across individuals.

The task of developing an instrument for content analysis of meaning therefore involves identifying protocols to allow us to arrive at an interpretation of a speaker's meaning, which draws on as many of the linguistic and contextual cues as possible that are available to the participants on the ground. Such an instrument should also, at least in principle, allow researchers to track changes in meaning by allowing them to compare usage across time.

RELIABILITY

Many of the studies that analyse CSCL interactions are small-scale, providing an account of the analysis of a single course or a single module within a course. Independent replicability of a methodology is rare, and where it does occur often involves extensive modification of the original scheme. Furthermore, the two major reviews of this field emphasise that the reporting of validity and reliability in these case studies is frequently either absent altogether or reported in a manner that is methodologically unconvincing (Rourke et al 2001, De Wever et al 2006).

In an attempt to develop a methodology to track and interpret how meaning is developed and conveyed online, there are generic methodological requirements to satisfy, which include the development of an appropriate means to code for both latent and explicit processes, and direct and indirect meanings. The decision taken in this study is use models from pragmatic theory as the conceptual framework for the analysis. Pragmatics is seen as appropriate for this task as it is not tied to a mode of communication, but is taken in this study as set of basic principles of communication.

A PRAGMATIC APPROACH TO CSCL TRANSCRIPT ANALYSIS

Theoretical Foundations

The goal of pragmatic theory is to provide an account of interpretive competence to explain the principles which enable us to understand what is meant by a particular stretch of talk on a particular occasion. Pragmatics is concerned with language in use, and specifically with the ability of people to reach common understandings when they talk together.

Natural conversation is not restricted to using language to transfer information or propositional content. Language is used in groups to achieve transactional and interaction goals. Consequently, meaning is described here as the relation of the proposition and the speaker's intentions both with respect to their goal for the interaction as a whole and their goals in relation to the local management of the conversation. All of these factors will influence the choice of expression. Meaning is therefore represented here as multi-componential.

The central principle of pragmatic theory is that interpretation of meaning is an inferential process. Certain constant principles enable and constrain the inferencing process. The principle of regarding meaning as an inferential process drives from Grice's (1957, 1975) work on the theory of meaning. Grice draws the distinction between what is said (literal meaning) and what is implicated. Literal meaning is an entailment mapped directly on to the words used, and the meaning is present on every occasion of use. However, the same sentence can be used to express implicated meaning (an implicature). An implicature is any non-conventional meaning that is conveyed and understood implicitly without ever being directly stated.

Grice's model of conversation is based on two explanations. One explanation is the Co-operative Principle. According to the Co-operative Principle the hearer expects the speaker to be as clear, informative, economical and relevant as possible. The Co-operative Principle is formulated as four maxims: Quality, Quantity, Relation and Manner. The second explanation is based on recognition of the speaker's intention, and specifically that recognition of the intention produces the desired effect in the audience. In this theory the prototypical way of conducting a conversation is to proceed on the mutual assumption that the maxims of the Co-operative principle are being followed. Conversely, the prototypical way to express an implicature is to intentionally fail to abide by the maxims. The addressee assumes the non-compliance is intentional and seeks to recover the meaning conveyed, through a process of inference.

Although the cornerstone of pragmatic theory, Grice's theory is flawed. However, his work has been developed as two major theoretical positions. Relevance Theory recognises two levels of meaning; sentence meaning (literal and semantic) and speaker meaning (intended meaning). (Sperber and Wilson 1995, Blakemore 1992) On this account every implicature is a one-off inference to a context-specific and context-dependent speaker meaning, using the full body of assumptions held by the participants on that occasion and marked as salient by the Principle of Relevance. The alternative position is developed by Levinson (2000), who argues for three levels of meaning; sentence meaning, utterance meaning and speaker meaning. The key difference is that Levinson recognises within the utterance-meaning category that certain types of implicated relations are so conventionally conveyed through certain forms of expression, that they convey default (or preferred) meanings. In Levinson's scheme these default implicatures are part of our knowledge of the language system and do not need to be calculated within a context of use.

Relevance Theory and Levinson's theory of generalised conversational implicature are both fully developed, and widely respected neo-Gricean pragmatic theories. It is beyond the remit of this chapter to address the theories in full or to discuss in adequate depth the arguments in favour of one theory over another. Levinson (2000) offers a sound critique of Relevance Theory, and Blakemore (1992) both applies Relevance theory and provides a critique of Levinson's position.

I have adopted Levinson's theory in this study for the following reasons. The central issue between the two schools is whether certain kinds of implicated relations are part of the language system. Examples of these relations include (i) use of a marked over an unmarked expression e.g. steed/horse and (ii) hierarchical relations of inclusion or exclusion, e.g. the term "many" includes the concept of "a few" but not the other way around, or (iii) that the most stereotypical expression of a concept suggests the most stereotypical interpretation.

Following Levinson, I find three arguments in critique of Relevance Theory. The first is that the Principle of Relevance generates a calculation of optimal relevance through a calculation of contextual effects over processing costs. However, there is no account in Relevance Theory of processing costs to measure effort expended, other than to treat the optimally relevant outcome as that which was the most economical to attain. There is thus circularity in the argument. Secondly, the operative principle of Relevance relies on deductive reasoning. Deductive reasoning systems do not permit the inference to be cancelled by further premises in the argument. Yet, implicatures are by definition cancellable in this way. For example, "The blues won, but only afterthe other team failed the drugs test". Thirdly, Levinson has provided cross-linguistic evidence for the types of systematic default implicated relations, which are the core of his theory.

Levinson adopts Grice's fundamental distinction between what is said (literal meaning) and what is implicated. The 'implicated' branch is then subdivided into conventional implicature and conversational implicature. Conventional implicature is an inference that is always associated with a particular word, forming a small set of two to three words. Conversational implicature is further subdivided into generalised conversational implicature (GCI) and particularised implicature (PCI). A GCI is a default or preferred interpretation, calculated over form and syntax, using one of three pragmatic principles (Q-principle, I-principle and M-principle). A PCI is a one-off, context-dependent inference calculated according to the Gricean relevance principle.

The three heuristic principles, which guide the interpretation of GCI conversational inferences, are of importance in this study as these are proposed as protocols in coding meaning. A brief description of each follows.

THE Q-PRINCIPLE

The Q-principle is based on the first sub-maxim of Grice's maxim of Quantity. This principle induces inferences from the use of one expression to the assumption that the speaker did not intend a contrasting, usually informationally stronger, one. The principle rests on Gazdar's (1979) work on scalar implicature, Horn's entailment scales (1989) and the principle of paradigmatic opposition. The scales are formed of semantic sets that have a genuine informational asymmetry between items on the scale, so that asserting a weaker item automatically implicates that the stronger items do not apply. Two examples of such a scale using adjectives are:

[excellent, commendable, good, average, fair]
[sub-zero, freezing, frosty, cold, chilly, fresh]

Three paradigmatic, different types of scale are identified, as in the examples below. However, other scales can be formed using this principle.

SCALAR IMPLICATURE

Example 1:

Quantifiers [All, most, some, several, few]

Some children enjoyed the horror film.

Implicature-> not *all children,* not *most children*

CLAUSAL IMPLICATURE

Example 2

If it rains the party will be inside.

Implicature-> If it does not rain, the party will be outside.

ENTAILMENT SCALES

Example 3

I think the answer is Graham Green.

Implicature-> The speaker is not certain.

THE I-PRINCIPLE

The I-principle, or principle of informativeness, is based on the second sub-maxim of Grice's maxim of Quantity. The I-principle acts as an instruction to find an interpretation of the data that meets the requirements of being both stereotypical and highly specific. The procedure typically generates several competing interpretations. The interpretation selected on a particular occasion of use provides the "best fit" in respect to providing maximal informativeness. Maximal informativeness obtains when the chosen alternative achieves higher levels of cohesion, (i.e. temporal, spatial, causal and referential connectedness, and actuality of referents) than others.

The process also relies on the assumption that the hearer will recover the intended referent and meaning because he or she is drawing on the same set of assumptions as the speaker. In this way, the choice of a minimal form of expression both exploits the common ground and gives some indication of what is to be taken as part of the common ground.

THE M-PRINCIPLE

The M-principle is based on two of Grice's submaxims of Manner. The principle induces inferences based on the assumption that use of a marked expression signals an opposing interpretation to that generated by the use of the complementary unmarked expression. The inference is mainly generated by the form of the expression.

Levinson' use of the notion of markedness focuses on the relation between formal and semantic markedness. On the formal side, marked forms are more morphologically complex, less lexicalised, less frequent and less neutral in register. On the meaning side, marked forms suggest additional meanings or connotations.

TOWARDS AN ANALYTIC FRAMEWORK

The recognition of a speaker's interactional goals within a context of interaction is central to the inferential process of meaning-making. It is therefore important to include within the analytic scheme additional levels of analysis to describe these dimensions of the event.

Two levels are added above Levinson's framework of conversational meaning. The top-level defines the activity type in terms of the expectations participants bring to the event based upon their socio-cultural knowledge and previous experience of events of this type. Levinson's (1979) schematic framework of an activity type is used for this purpose. The mid-level analyses the local management of the conversation, in terms of the types of communicative moves used to negotiate the interaction and to co-construct meaning. Conversational Analysis is used for this purpose. Table 1 demonstrates how the three levels of analysis form a hierarchical relationship, with information filtering from the top level to the lowest level.

FRAMEWORK LEVEL 1

As part of knowing the meaning of an utterance is to know the nature of the activity the language is being used in, the top-level of the framework describes and analyses the social activity engaged in. The unit of analysis at this level is the message.

The social activity creates expectations about what types of utterances typically occur in this type of activity. Roles are set out, and temporal, spatial and teleological constraints are set in place. Together, these expectations and constraints determine what illocutionary force an utterance has and how to interpret indirect meaning.

As the definition makes clear the dominant influence on any activity type is the desired goal.

"The notion of an activity type refers to a fuzzy category, whose focal members are goal-defined, socially constituted, bounded events with constraints on participants. Paradigm examples would be teaching, a jural interrogation, a football game, a task in a workshop, a dinner party etc." (Levinson 1979: 368)

Table 1. An abridged version of the analytic framework

Unit of Analysis	Level of framework	Output
The message	**Level 1**- Activity Type (Levinson 1979)	Defines and describes participant roles, constraints on participation, and the sequences of the social activity. It therefore permits an interpretation of speaker goal.
The message	**Level 2**-Conversation Analysis (Sacks 1992a 1992b)	Breaks down the message into its constituent conversational moves.
A conversational move (from level 2)	**Level 3**-Grice's Theory of Meaning (1975) + Theory of GCI (Levinson 2000)	Provides an interpretation of speaker meaning, based on conversational moves, chosen form of expression, and also the interpretation of speaker goal inherited from level 1.

In an activity type, the goal defines and determines the meaning of all the elements and actions that constitute the event. Levinson proposes five elements as the structural framework for activity types:

- Conventional episodes or stages in the activity.
- Norms governing the allocation of speaking turns.
- Constraints on who may participate and on participant roles.
- Constraints on the time and place an event can properly take place.
- Constraints on topical cohesion and conversational coherence.

FRAMEWORK LEVEL 2

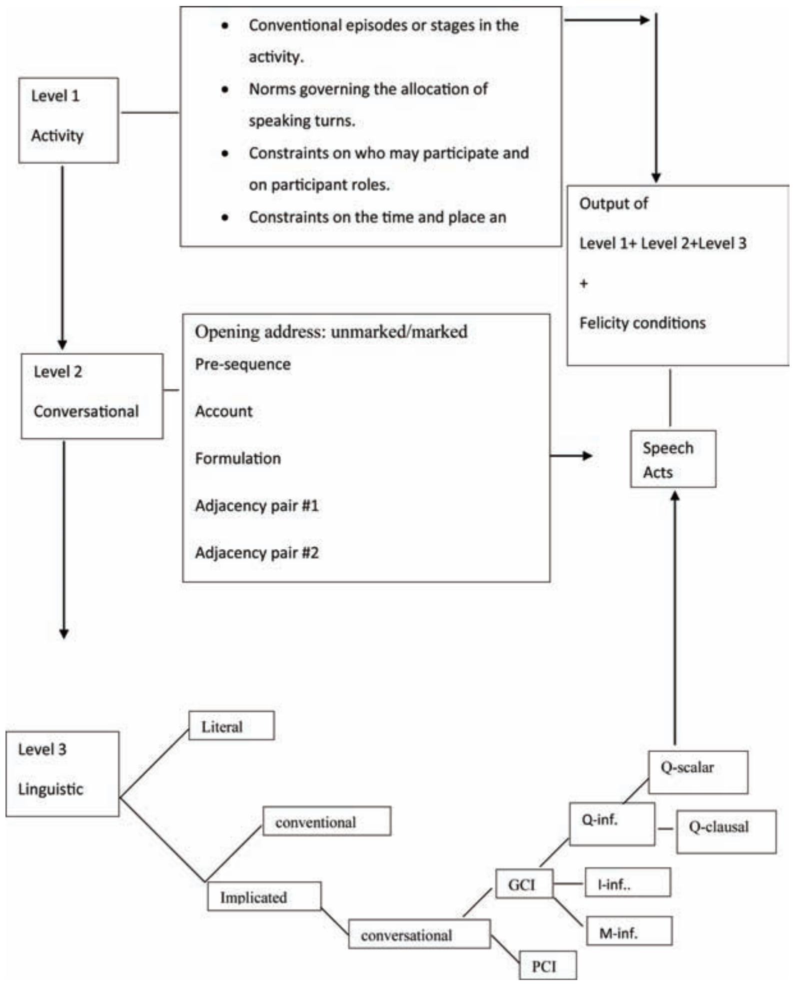
Conversation Analysis (Sacks et al 1974, Sacks 1992 a, 1992b) allows a linguistic categorisation of permissible moves in an activity type.

The key idea behind the Conversation Analysis perspective is that talk is organized as a sequence of speaking turns, which are bound in relations of discourse coherence, and frequent use of adjacency pairs. As noted above, studies by Condon and Czech (1996) and Davis and Brewer (1997) have shown that adjacency pairs are used extensively as a discourse strategy in asynchronous CSCL.

Coding of the conversational moves within individual messages provides a reading of the structure of each message and the conversational moves individuals use to achieve their goals. The coding categories for this study are the standard set of Conversational Analysis categories (see Grundy 2000:186-190, Woofit 2005), with some minor modifications to take account of the CSCL environment. In summary, these modifications were to:

- Include the message header or title as a conversational move with an orientation function.
- Specify as unmarked (default) an opening address, which is inclusive of all readers and as marked version an address that denotes a restricted audience
- Specify the use of a name as the unmarked closure and the absence of a name as marked behaviour
- Allow for three exchanges within an adjacency pair "set"
- Code two moves for conversational repair: other-directed repair and self-repair
- Include the phatic "aizuchi" category. Communications may be verbal or non-verbal (e.g. graphics, stylised abbreviations)

Figure 1. The analytic framework



USING THE FRAMEWORK

The framework is used both as a method to code the parts of the message and as a method to provide a probabilistic interpretation of the speaker's meaning. The term probabilistic is used to capture the idea that the researcher's interpretation is made on the basis of a reconstruction of the contextual and linguistic cues that were available to the recipients of the message at the time.

A message is entered into the top level of the framework. The five elements of Levinson's Activity Type are used to describe the general communicative context and to predict likely goals for the interaction. This information is not formally coded but it is used to inform the coding performed at the other two levels in the framework.

The message is then entered into the second level of the framework. At this level the message is segmented into its constituent conversational moves. The coding (segmentation) is performed by identifying the smallest unit of text within the message that satisfies the definition for a conversational move. Identification of certain of the coding categories, and in particular the coding of adjacency pairs, often involves making an initial hypothesis about the speech act performed. Two procedures were used to guide this process: (i) reference is made to the CA standardised definitions and to Collot and Belmore's list of adjacency pairs within online discussion groups, (ii) the interpretation of the form-function relationship is informed by the interpretation of speaker's goals developed at level one of the framework. Each move is coded as one of the CA categories.

Each conversational move is then entered to the third level of the framework. Coding is performed using Levinson's conversational framework, including the expanded branching sub-categorisation of different types of implicature.

Coding of the moves at level three also provides for an initial interpretation of the meaning of stretches of talk. The interpretation of meaning is made by working out the most probable propositional content on the basis of the available semantic and grammatical information, disambiguation of referential terms and by working out implicated meaning. The additional information provided by analysis and coding at the two higher levels, specifically speaker's goal, conversational move, the location of the move within the message, the overall structure of the message and the relation of the message to others within its context (as part of an adjacency pair sequence or referential links), is used to enhance the interpretation of propositional content and to further inform the interpretation of speech acts.

Lastly, the interpretation of the meaning is refined by applying a procedure based on the Principle of Coherence. The procedure is to examine the recipients' interpretation of the message as revealed by subsequent (coded and analysed) messages. The procedure also considers whether the felicity conditions for the speech act are in place, and looks for levels of topical and interactional coherence with other messages to which the move in question is either threaded or lexically linked.

In summary, the output of the passage of the message through the framework is an inferential reading of the conversational aim of the message, the structure of the message, an interpretation of the speech acts performed and a reading of what meanings were conveyed and how and when meaning was conveyed indirectly.

Applying the Framework to Data

The framework was used to analyse the discourse of four online groups.

The data set consists of 334 messages, exchanged by 15 students in 4 groups over two year groups. The corpus is the four, complete transcriptions of their talk during a four week co-operative learning task undertaken as part of an online module on a University of London Masters level course in Education.

The 334 messages were coded using the framework and the procedures as described above. Intra-rater reliability, in two separate coding programmes at the start and end of a three month period, was satisfactory – approx. 82%.

Overview of Analysis and Results

Two approaches were taken to the analysis of the coded data. One was to make a comprehensive summary of each message, using all the information obtained as output from the framework. The second involved reiterative, intensive reading of the coded data to detect and track emergent patterns in the discourse. This second approach derived 19 categories related to discourse behaviour, 6 categories at the level of the message (message structure and function) and 13 discourse management strategies occurring within messages.

The categories were entered to an Excel spreadsheet to create a database. The method of entering the data was to mark the occurrence of the category as present or absent for each of the 334 messages. The sum of each category was totalled and the percentages were calculated for three types of reading:

- The prevalence of the message type as a percentage of all the messages in the corpus

- The percentage of messages within each message type of the discourse categories
- A reading for each category of the percentage of occurrences, broken down by message type

Four basic message types were identified with two variants, and all 334 messages in the corpus were directly allocated to one of these types. All messages conform to the basic schema of an opener (+ or – pre-sequence), a contentful body, a pre-closure, typically eliciting a response, and closure. However, the types differ in the structure and composition of the body of the message. The main differences identified are (i) the structure and patterning of the conversational moves (ii) the occurrence or absence of indirect forms of expression, including GCI and PCI (iii) the degree and type of intertextuality and cross-referencing between messages, and (iv) the functional distribution of the message types.

The body of the Type I/Default message type is structured as one or more account move(s), with little or no occurrence of indirect meaning. The default type also ranks markedly lower in linkage and reference to other messages than other message types. Yet the type is prevalent and represents 23% of the corpus. It is primarily used for summaries, which serve as a platform for re-launching the discussion and to convey instructions (18% of indirect and 16% of direct commands/instructions).

Types 2 and 3 are the Interactive-Social (19% of corpus) and Interactive-Directive message (24% of corpus). These types share the identical structure and differ only in the speaker's intention. The message body is structured as one or a string of adjacency pairs. Levels of inter-message referencing are high, and 16% of both types contain indirect propositions interpreted through GCI or PCI. The social variant is used for socializing: 58% contain direct speech acts of emotion 35% contain phatic comments (aizuchi). Conversely the directive variant is used to bring about a change of state. 48% express indirect commands, 47% include direct requests for feedback, and 30% are used exclusively by the peer co-ordinator.

Type 4 is the Given message type (18% of corpus), which shares the same structural patterning as the Default type. The primary distinguishing characteristic is the textual instantiation of assumptions of shared knowledge. 65% of this type use anaphoric referencing to link to other messages and 32% contain reiteration of parts of other messages. Equally the type displays relatively high levels of indirect meaning, including the expression of epistemic uncertainty in relation to the topic. The most prevalent use of given messages is to ask questions or to give critical feedback in discussions on the learning material.

Type 5 is the Risky message type (5% of corpus). The structure is formed around reiteration of the account + formulation move pair. The messages are textual and 22% contain GCI M-inferences. There are quite high levels of direct repetition from other messages, yet only 28% contain anaphoric referencing - well below the corpus average of 42%. The content is rarely expressed through inference. The risky messages are most often used to discuss the learning material. A notable pattern is that despite making up only 5% of the corpus, this type is extensively used to write platform summaries, to challenge others' ideas (31% of all challenges) and for meta-comment.

Type 6 is the Mixed message type (12% of corpus), which include more than one of the five main message types. This type is used to perform multiple communicative acts within the same message boundary.

The analysis also identified 13 discourse management strategies that used within the message. These are grouped as four themes

- Indirect expression of meaning (5 categories + aizuchi)
- Direct expression of meaning – direct speech acts (3 categories)

Table 2. Percentages for discourse categories of directness and indirectness

Indirectness categories	% of corpus	Directness categories	% of corpus
False repair	2% (7)		
Epistemic uncertainty GCI Q-clausal	10% (32	Request for feedback	30% (100)
Indirect command/strong request	39% (129)	Direct command/ strong request	20% (67)
Indirect proposition	17% (58)	Expression of emotions	34% (114)
Use of M-inferences	18% (59)		

- Cohesion (2 categories)
- Repair (2 categories).

As the main focus of the chapter is on the management of speech acts and conversational implicature in CMC, the results, as a percentage of occurrence across the messages in the corpus, are summarised in Table 2.

The remaining four discourse categories are the two categories for cohesion and the two categories for conversational repair. In this data cohesion was maintained by various kinds of reiteration in 20% of the messages. Use of anaphoric referencing as a cohesive device varied considerably in this data set from message type to message type, ranging from a low at 21% of occurrences across the default M=type and a high of 65% across the Given message type. Of the repair categories, self repair occurred across 2% of all messages and repair, as requests for further information, clarification or elaboration, directed to others occurred across 10% of all messages.

CONCLUSION

Using the framework to probe the data has offered a certain amount of information about the participants' use of discourse strategies in this task, most notably in the consistent patterning of the message types and the specialisation of function for these message types. Among the results of the 13 discourse strategies the use and occurrence of indirect means of expression, including the use of the GCI, are of interest as there is a fair degree of indirectness, and further analysis is needed to examine to what extent the categories of repair might also used as indirect prompts. Further analysis might also focus on the distribution of the discourse categories across the four weeks of the task as a whole and consider their relation to group process and to conceptual learning.

As technologies develop, it is clear there will be greater emphasis in the foreseeable future on mobile learning technologies, such as hand held devices which will alter the types of information available for input to group discussion forums such as this. It is already clear that a greater range of modalities are available for the communication and exchange of ideas. However, it might be argued that talk around these modalities will still have a prominent place. One research task is then to understand how the changes in mode, modality and use impact on the types of talk used to make sense of the meanings being conveyed.

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KEY TERMS AND DEFINITIONS

Computer-Supported Collaborative Leaning (CSCL): - Computer supported collaborative learning is group-based learning. The learning takes place primarily across computer networks, but may also be mixed mode (e.g. face-to-face and online). The learning mode is collaborative as the group work interdependently to achieve a joint goal.

Conversational Analysis: Conversational analysis is the study of talk in interaction. It describes the orderliness structure and sequential patterns of interactions through conversation. CA is inspired by enthnomethodology, and originated in the work of Sacks, Schegloff and Jefferson.

Conversational Implicature: A conversational implicature is the expression of an indirect meaning in the sense that there is no literal mapping between the form of expression used and the intended (and interpreted) meaning. It refers to meanings which are conveyed in such a way that the speaker's intendend meaning is inferred from the linguistic cues and other context cues. Conversational implicature is based in Grice's theory of meaning, Speech Act theory and Levinson's theory of presupposition and implicature.

CSCL Discourse: The talk of learning groups when engaged in a CSCL task in online asynchronous communications environment has particular features which differ from talk in other modalities. The talk of these groups and the ways in which they express their thoughts and mange their interactions through their talk is their discourse.

Speech Act: A speech act is a technical term in Linguistics and philosophy. Austen's early informal characterisation of a speech act is "by saying something we do something". Three categories are commonly recognised as components of a speech act: the locution-the act of saying something, the illocution -the speaker's intended meaning, and the perlocution - the effect (intended or otherwise) on the recipient of the speech act.

Chapter 50
Politeness as a Theoretical and Empirical Framework for Studying Relational Communication in Computer-Mediated Contexts

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ABSTRACT

This conceptual chapter draws on the sociolinguistic theory of politeness, showing how politeness provides a robust theoretical and empirical framework that can be usefully applied to the study of relational ties in computer-medicated-communication. The chapter first reviews politeness theory, and shows how politeness is operationalized relative to a definable set of linguistic indices that are used throughout everyday discourse to communicate respect and esteem for others' face. The chapter then discusses how recognition of the central role of face-work in social interchange can enhance our understanding of why and where emotion-work might occur in CMC, how such emotion-work (in the form of politeness) can be reliably observed and quantitatively measured at a linguistic level of analysis, and how the distribution of politeness phenomena is systematically related to relational variables that are mainstays of CMC research – variables such as socioemotional versus task orientation, status, cohesion, impersonality, friendship, and communicative efficiency.

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INTRODUCTION

In this article I draw upon the sociolinguistic/anthropological theory of politeness (Brown & Levinson, 1987; Watts, 2003), suggesting how this theory and its considerable body of empirical findings might usefully inform research on computer-mediated communication (CMC). It is suggested that politeness can contribute to CMC in two general ways.

For one, CMC research lies at the intersection of several disciplines -- including computer science, systems science, organizational theory and behavior, and social psychology. Yet it is surprising that for the study of what is essentially a social psychology of communication, CMC researchers have scarcely tapped into the existing body of research and theory in the fields of linguistics and sociolinguistics. Social psychology deals with social interaction, particularly among groups of individuals; sociolinguistics carries an added advantage in that it is expressly concerned with how language varies as a function of social roles and variables, and with how specific linguistic elements function to convey relational meaning. Language is basic to communicative processes, but even more so in computer-mediated environments given their narrower bandwidth. Thus, by drawing on politeness theory this paper provides a window into how one prominent and emerging area of sociolinguistic research can be applied to the study of CMC.

A second general contribution of politeness theory to the study of CMC emanates from the dramaturgical framework (Goffman, 1967) that politeness theory uses to analyze relational messages. An implicit assumption of much literature that has studied socio-emotional aspects of CMC is that humans possess strong social, affiliative needs. But the literature tends to take these social needs for granted, focusing instead upon examining how different communication environments affect certain outcome variables. Yet the model of human interaction elaborated by politeness theory (Goffman, 1959, 1967, 1971), by directing our attention to the central role of face in social interchange, provides a novel yet grounded framework offering fresh insights into the emotional and interpersonal dynamics undergirding group processes – dynamics (as I argue herein) that are just as pivotal to electronic as they are to face-to-face communicative contexts. I begin by introducing politeness theory.

POLITENESS THEORY

Politeness encompasses more than the mannered etiquette of Emily Post (Post, 1997). The theory (Brown & Levinson, 1987) -- well known in anthropology, social psychology, and linguistics (for reviews: Brown, 1996; Brown & Gilman, 1991; Fraser, 1990; Kasper, 1990; Morand, 2000, 2005; Watts, 2003) -- is rooted in the dramaturgical theories of Goffman (1959, 1967, 1971), particularly relative to the central role of face in interaction. Dramaturgy here simply references Goffman's conception of individuals as social 'actors' who concertedly 'perform' (present a public self) on the stage of everyday life. Individuals use linguistic, behavioral and gestural displays to present a positive self-image ("face") to the social world; they seek to create certain impressions in others, to appear smooth and competent in their role performances, to be perceived as appropriately heedful and supportive of others' performances, and so forth. Face, the positive social value each person effectively claims for him or her self in the public arena (Goffman, 1967), is proffered and thus exposed throughout interaction. Face is the very reflection of self worth; upon this presentational aspect hangs individuals' self-esteem, self-identity, their credibility as a member of the social group. "There is nothing routine about face to face interaction, exposure of face to possible undermining by others, and its treatment by others, is a hallowed event" (Becker, 1991:87).

While Goffman highlights individuals' presentational work designed to bolster and maintain their own face, politeness theory emphasizes interactional "support work" destined toward others' face. That is, all individuals have face, but also "face wants" -- the desire and expectation that others who surround them in interaction will work to affirm and preserve their public persona. In essence, politeness means "phrasing things in such a way as to take into consideration the feelings of others" (Brown & Gilman, 1991: 160).

LOCATING POLITENESS IN EVERYDAY SPEECH

While face is exposed throughout interaction, there exists a set of common interactional events -- here termed "face-threatening-acts" (hereafter FTA's) -- during which support-work destined toward others' face is particularly critical, hence most readily observed. FTA's include acts of criticizing, disagreeing, interrupting, imposing, asking a favor, requesting information or goods, embarrassing, bumping into, and so forth. Thus a simple request for information -- such as for the time -- threatens another's face in that it encroaches upon one's personal preserve. The requestor has presumed some right of access to the hearer's time, energy, and attention. When "performing" (phrasing) FTA's, speakers (in CMC: "senders") draw upon linguistic politeness routines so as to defray or mitigate the face threatening aspect. Phrasings such as: "Would you be able to tell me the time?" or "Excuse me, do you have the time?" typify verbal interchange, including, most certainly, interchange in CMC. Indeed, as I explore herein, due to the absence of visual and aural cues in CMC, greater emphasis necessarily falls to linguistic channels – the very medium scrutinized by politeness theory. Thus, rather than "Give me the figures," one hears (in CMC: one "sees") the more amenable: "Hey, when you get a chance, I'd like the opportunity to look over those figures." More than interactional gloss, these verbal forms are central to managing the uncertainties of social interface. Figure 1 models options ("strategies") available to actors faced with performing a speech act they deem face threatening.

DO NOT PERFORM THE FTA

Here the sender entirely eschews performance of the FTA, thereby being perfectly successful at avoiding threat to another's face. Someone mustering up courage to request a raise from the boss (an act presuming access to other's resources and impinging upon his or her desire for autonomy and self-determination) may entirely forgo the request. As the figure indicates, actors choose this strategy when they estimate the threat to another's face to be quite high.

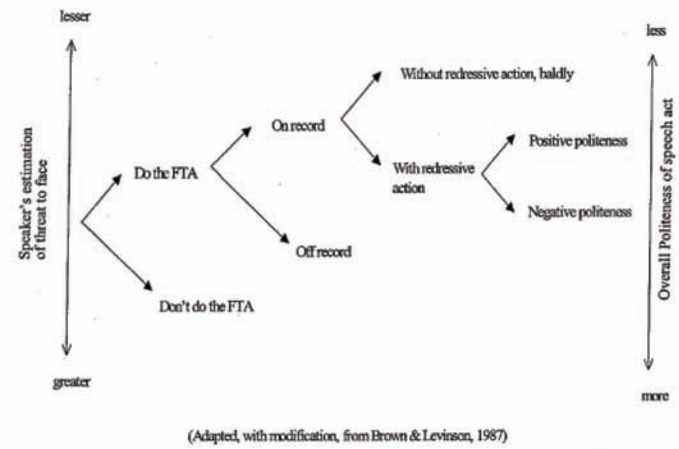
GO OFF-RECORD

Should an actor decide to perform the FTA, they may go "off-record." Such messages are ambiguous, so loosely constructed that more than one clear intention is attributable -- one of which attributions poses no threat. For example, one interested in making a copy of another's computer software may say: "That's a great program, I've been meaning to get one, but it's so expensive." The receiver cannot know with certainty that a hint has been broached; the sender can credibly claim they did not intend to impart such an interpretation.

GO ON-RECORD, BALDLY

To go "on-record" entails phrasing the FTA such that the sender's intentions are unambiguous. To do so "baldly" entails phrasing the utterance in direct, blunt terms with no attempt to soften or ameliorate the face-threatening thrust. This is often instanced through use of the imperative form: "Be here at 9 a.m.," "Get me those figures," "Go

Figure 1. Flowchart of politeness strategies ordered against estimated threat to face



away." Beyond unadorned bluntness, bald acts may include the insertion of aggravating, threat-escalating clauses: "Don't just stand there; I want that report, now" (Blum-Kulka & House, 1989; House & Kasper, 1981).

GO ON-RECORD WITH REDRESSIVE ACTION

In going on record with "redressive action" a sender unambiguously performs a speech act while at the same time employing redressive language so as to moderate or palliate its force. This is the most common and most linguistically diverse strategy. Here senders draw on an array of discrete linguistic devices --"negative" and "positive" politeness "tactics" -- to moderate or palliate the acts' force. These 2 categories of redressive politeness derive from the fact that face wants possess two basic aspects --"positive face" and "negative face." Positive face references every individual's basic desire for their public self-image to be shown positive regard, the desire for engagement, ratification, appreciation from others -- in short 'the want to be wanted.' But at the same time that individuals desire affirmation and esteem from others, they also desire a degree of autonomy and self-determination. Accordingly, "negative face" represents the want of every social actor that his or her person be unimpeded -- the desire for freedom from impingement.

Positive politeness tactics (rituals of approach) thus reference interpersonal behaviors that address or invoke others' positive face wants. The inquiry: "Hey, I really like that tie, where'd you get it? By the way.. ." addresses positive face in that the request is palliated, to a degree, through the demonstration of esteem. In contrast, negatively polite constructions create or demonstrate psychological distance and circumspection. Thus, "Excuse me, I'm very sorry to bother you, but I was wondering if I might perhaps.. .?" contends with negative face. The negative and positive tactics are thus linguistic behaviors used by social actors to display attitudes of consideration and regard directed toward the psychological territories of others.

There is accordingly a ceremonial aspect to everyday behavior. Durkheim (1915:23) first used the terms positive and negative to define generic ritual attitudes toward sacred objects; he then extended the logic to the interpersonal domain: "the human personality is a sacred thing, one dare not violate it nor infringe its bounds, while at the same time the greatest good is in communion with others." Similarly: "Social intercourse involves a constant dialectic between presentation rituals and avoidance rituals...the gestures which carry an actor to a recipient must also signify that things will not be carried too far" (Goffman, 1967:73). And: "Whenever one individual rubs up against another he is likely to say 'hello' or 'excuse me'." (Goffman, 1971:64).

SPECIFIC NEGATIVE TACTICS

Negative tactics (Table 1), as noted, convey redressive intent by creating psychological distance between actors, hence removing, to a degree, face threat. For example, conventionally indirect speech acts (Table 1, tactic #1), at a literal level, do no more than inquire into "preconditions" (necessary but insufficient conditions for speech acts to succeed); (Austin, 1968). Thus "Do you know what time it is?" could beget "Yes, I do," for at a grammatical level it merely queries one's knowledge (a precondition). Yet because all competent speakers understand this to encode a direct request the usage is "on-record"; it broaches intent but in an oblique manner. Other indirect expressions include inquiries into existential preconditions ("Do you have the time?"), into preconditions premised on ability ("Can you tell me what time it is?"), and so forth (Ervin-Trip, 1971; Labov & Fanshel, 1978).

By using hedges (#2) speakers avoid committing themselves to the intent of their own speech act ("I wonder in could perhaps/maybe/possibly ask you.. ."). Here "perhaps" embeds, in effect: "I am letting you know that I anticipate and accept the possibility of your noncompliance." Use of the subjunctive (#3), the syntactical form used to express doubt, defrays face threat by placing conditionality upon the hearer's compliance with a speech act ("Could/would you do me a favor?"). Words or phrases that minimize an imposition (#4: "Could I have just a few seconds.. .") signal that the intrinsic seriousness of the imposition is not great. More formal language choices (#6) function to communicate social distance and respect for the addressee. For example, compare "Would you care for a beverage" to "Would you like something to drink?," or "I don't mean to intrude" versus "I don't mean to butt in."

Through nominalization (#8), the process of changing verbs and adverbs into nouns or adjectives, actors are removed from a sense of feeling or doing things, thus their speech acts carry less active force (Brown & Levinson, 1987)). For example, instead of "I want you" constructions such as "You are wanted" occur. Similarly, compare "I expect that.. ." to "It is expected that.. . ." Finally, use of the past tense (#9) when the present tense is grammatically and pragmatically correct ("I was/had been wondering if I could ask a favor") moves the sender's intent "as if' into the past, and by extension the infringement into the conditional future (Fillmore, 1975; Lakoff, 1977) (further examples in Table 1).

SPECIFIC POSITIVE TACTICS

With negative tactics the sphere of redress is limited to the imposition itself, but with positive tactics (Table 2) the sphere widens to an appreciation of the other's wants in general, or to an expression of commonality between speaker and hearer. Face threat is palliated through conveyance of esteem, by bringing actors into a common identity and shared sphere of concern, or by invoking underlying expectations of reciprocity among in-group members. For example, positive tactic #1 entails showing interest in or admiration for the hearer. By calling attention to the hearer's qualities, possessions, interests, or wants ("Gee, that's a really

*Table 1. Tactics of negative politeness**

Tactic	Example
1. Use conventionally indirect questions such as inquiries into the hearer's ability or willingness to comply.	"Can you tell me what time it is?"
2. Use hedges: words or phrases that diminish the force of a speech act.	"Can I perhaps/possibly trouble you?"
3. Use the subjunctive to express pessimism about hearer's ability or willingness to comply.	"Could I ask you a question?"
4. Use words or phrases that minimize the imposition.	"I need just a little of your time."
5. Give deference by using honorifics such as Sir, Mr., Ms., Dr.	"Can I help you, Sir."
6. Use formal word choices to indicate seriousness and to establish social distance.	"Could you tolerate a slight imposition on my part?"
7. Apologize: admit the impingement, express reluctance.	"I am sorry to bother you, but…"
8. Impersonalize the speaker and hearer by avoiding the pronouns "I" and "you."	"Is it possible to request a favor?"
9. Use the past tense to create distance in time	"I had been wondering if I could ask a favor."
10. Nominalize (change verbs & adverbs into adjectives or nouns) to diminish speakers' active participation in commission of a speech act	"My asking you to leave is required by regulations."
11. State the face-threatening-act as a general rule	Regulations require that I ask you to leave."

*adapted from (Brown & Levinson, 1987)

great looking notebook, mind if I try it out?"; "Lars, you look lovely today, by the way. .") a speaker shows appreciation, and implies the existence of common ground with the hearer.

Some positive tactics (#'s 2, 3, 4, and 5) draw upon linguistic forms typifying speech among intimates (Brown, 1990, 1996, 1998; Labov, 1972; Labov & Fanshel, 1978). The model suggests that implantation of such phraseology acts as a "social accelerator," palliating face threat by invoking shared group affiliation, wants, states of mind. For example, phonological slurring (#2) -standardized ways of incompletely enunciating words or word phrases ("Hey, how'ya doin?, gimme a hand, willya?", "Wanna cuppa java? [Obviously in CMC words are not enunciated, but phonological slurring can and does occur in CMC, just as it has been phonetically typed in the preceeding sentence]) -- is associated with casual, informal, intimate social contexts, or with attempts to insinuate such an ambiance. The difference between "Hey" versus "Hello" or "How ya doin?" versus "How are you doing?" imparts significant information regarding a speaker's construal of the role relation. Colloquial, nonstandard, or slang terms (#3) function similarly to establish an air of informality and solidarity ("Hey, heard ya got a speeding ticket, *bummer* huh?").

By using devices such as small talk, gossip, or joking (#7) speakers assert/presuppose common values or like viewpoints with a hearer. Joking, for example, surfaces shared values in that "getting" a joke hinges upon tacit background assumptions. Likewise, small talk -the weather, sports, and so forth--reflects a sender's endeavor to locate or to infer a common point of view, and a presumed solidarity. Finally, use of inclusive forms such as "we" or "us," when the speaker really means "I" and "you" (#9; "Where did we put that book?" versus "Where did you put that book?"), places sender and receiver in the same role, thereby suggesting they share a similar outlook. (Refer to Table 2 for more examples; for greater explication of the tactics and the logic underlying their

Table 2. Tactics of positive politeness

Tactic	Example
1. Notice hearer's admirable qualities or possessions show interest, exaggerate	"Nice to see you, hey really love your new Palm-pilot, can I borrow it sometime?"
2. Employ phonological slurring to convey in-group membership.	"Heya, gimme a hand with this willya?"
3. Use colloquialisms or slang to convey in-group membership.	"Usually it's a real crap-shoot, but this job should be a piece-of-cake."
4. Use ellipsis (omission) to communicate tacit understandings.	(Do you) "Mind if I join you?"
5. Use first name or in-group name to insinuate familiarity.	"Hey Bud, have you gotta minute?"
6. Claim common point of view: speaker asserts knowledge of hearer's wants or asserts that hearer has knowledge of speaker's wants.	"You know how the janitors don't like it when…"
7. Seek agreement; raise or presuppose common ground/ common values; engage in small talk/ joke.	"Nice day isn't it?; Hey, how bout that game last nite? Did the Ravens whip the pants off the Giants or what!"
8. Give reasons: assert reflexivity by making activity seem reasonable to the hearer	"I'm really late for an important appointment, so…"
9. Use inclusive forms such as "we" or "lets" to include both speaker and hearer in the activity	"We're not feeling well, are we?"
10. Assert reciprocal exchange or tit for tat.	"Do me this favor, and I'll make it up to you."
11. Give something desired-gifts, sympathy, understanding.	"You look like you've had a rough week."

allocation to positive or negative face, see Brown & Levinson, 1987).

RANK ORDERING OF APPROACH AND AVOIDANCE

Positive and negative tactics, while often intermingled in speech, are conceptually distinct. Moreover, as Figure 1 shows, rituals of approach are overall less polite relative to avoidance. Positive rituals pose greater risk because broaching solidarity intimates an interpersonal privilege the receiver may be unwilling to grant; to insinuate camaraderie is to claim common ground. If the hearer does not share this claim the overture is invasive. Thus, "Excuse me, Sir, could I trouble you for some assistance on an important matter?" and "Hey, howzit goin? Hey, gimme a hand with this, willya?" are both polite; yet transmit contrary assumptions as to the interpersonal relation. The negative form acknowledges an imposition and moderates its force; the positive form presupposes that due to an underlying solidarity the imposition is intrinsically less severe.

APPLICATIONS TO STUDY OF COMPUTER MEDIATED COMMUNICATION

Given this brief account of politeness theory, what are the potential contributions of politeness theory and extant research on politeness, to research on processes and outcomes of CMC?

THE VALUE OF A DRAMATURGIC VIEW OF INTERACTION

For one, viewing interaction as dramaturgy adds an important dimension to conceptualizations of socio-emotional and relational communication found in the CMC literature. Indeed, the term "communication," as does any choice of terminology, comes laden with its own set of tacit, underlying assumptions. Communication has a technical meaning -- defined as the process of encoding, transmitting, and subsequent decoding of meaning by a receiver. But in contrast the term "interaction," more often used by behavioral scientists, directs attention away from strict message content and toward the psychological and group dynamics occasioned by the interfacing (and often clash) of public personas. Indeed Goffman might have preferred "computer-mediated *interaction."*

The difference is one of emphasis; an interactionist, dramaturgic perspective underscores the fact that no matter how technical a communicative exchange may appear, such exchanges are at the same time carried out by individuals conscious of investing and thus exposing their face in the public arena. Individuals derive psychological sustenance from participating in the arena of everyday interaction. For example, they strive to present a public self-image (face) that comports with their own internal self-image, thereby enhancing self-esteem. At the same time, individuals strongly desire that their public face be shown esteem and granted respect by others. Consequently, individuals know they must demonstrate their ability to handle the face of other members of their social group gently and with tact. To this end, during interaction individuals continually strive to put forth an accomplished, commendable "performance," and part of this entails phrasing things in such a way as to evoke the desired response in others -- i.e.: adeptness at use of politeness.

Proposition 1: Individuals who communicate in CMC environments are aware of and motivated by dramaturgical concerns (e.g.: if queried they would indicate that "coming off" well and appearing a competent, interesting, and considerate person to others is important to them. They would report awareness of phrasing messages in such a way as to preserve the harmony of social relationships, either by watering down the force of messages that might seem overly harsh or intrusive [negative politeness], or by attempting to show appreciation of and liking for others [positive]).[1]

ON THE LIKELIHOOD OF ENCOUNTERING POLITENESS IN COMPUTER MEDIATED ENVIRONMENTS

'Face', taken literally, is a visual entity. One might thus suppose that it is less exposed and invested by individuals participating in virtual communication. I would differ, and contend that face is ventured and thus exposed in virtual realities just as much as in face-to-face. By extension, face threatening acts, and the remedial politeness routines used to defray such face-threats, should occur with considerable frequency in computer-mediated interchange. Indeed Hiemstra's (1982) examination of transcripts from CMC sessions (both synchronous and asynchronous) found the great majority of messages to contain instances of face-threat, face-threats that were mitigated through the employment of linguistic politeness routines.

Conversational moves often studied in the politeness literature (such as disagreeing, criticizing, requesting information or assistance, giving information or assistance, giving directives, requesting clarification of a prior message) occur with no less frequency in cyberspace. Indeed due to the fact that visual and aural channels of communication are absent in CMC, we would anticipate that verbal channels – the very essence of politeness phenomena – would carry even more socio-emotional weight in CMC.

Even something as prosaic as requesting a pen exacts verbal politeness. Hill et al. (1986) noted over thirty ways of phrasing a simple request for a pen, phrasings that can be reliably ranked along a unidimensional continuum ranging from indirect to direct. At the polite end of the spectrum occur elaborate ritual phrasings such as, "Excuse me, I am sorry to bother you like this, but my pen ran out of ink, and I had been wondering if I might possibly borrow yours, just for a second?" Less elaborate but still polite phrases include, "I wonder if I could ask to borrow a pen?", "Could you lend me your pen?", "Can you lend a pen?", "I want to borrow your pen," etc. More direct phrasings use the imperative: "Give me a pen," or even increase the force of a speech act: "I am telling you to give me a pen." (While one does not typically request a pen in CMC a parallel exemplar here might entail a request for a file, as in: "Send me the file", "Could you please send me the file", and so on.)

Here also consider Goffman's observation to the effect that even sheerly technical interchange is typically bracketed by opening (greeting) and closing (farewell) sequences in which actors "clarify and fix the roles that the participants will take.. ." and "show participants what they may expect of one another when they next meet" (Goffman,1967:84). Such opening and closing sequences are inherently highly socio-emotional, often ceremonial in nature – and accordingly substantially laced with politeness routines. There is no reason to anticipate they would occur with less frequency in CMC. Indeed, due to the absence of nonverbal (e.g. a hand wave, handshake, or a bow) cues, verbal open and closing sequences probably carry more communicative weight in CMC contexts. Examples of opening sequences might include "Hi there!", "Dear Mike", "Dear Professor Jones", "Hello, it was nice hearing from you", and so on. Examples of closing sequences might include "Regards", "Later", "Bye", "Best wishes", "I look forward to hearing from you shortly", and so on. These are normatively required components of the 'interaction order' (Goffman, 1967).

Interestingly, there is one face threatening act -- common in FtF interchange -- that is not found in CMC: conversational interruptions. Interruptions are communicatively important, as they can be quite dysfunctional, and also indicative of dominance (West, 1984). This said, it is important to recognize how the unique contingencies of electronic technologies tend beget face threats of their own. For while interruptions are absent, interpersonal *intrusions* are in fact facilitated by technology. For example, it is far easier to hit the 'send' button than to walk down the hall to talk to someone. The face-related pitfalls of this are made evident in Lee's (Lee, 1994) hermeneutic analysis of a series of e-mail exchanges surrounding an employee's request (exchanges that were simultaneously sent to five individuals representing different organizational units and different hierarchical levels) to participate in a training program. The request represented a breach of the interaction order (as Lee put it: it was a "politically sensitive" request that "shattered protocol"; p. 152). In sum, face-work need not require FtF.

Proposition 2: The exposure of face, the commission of FTA 's, and employment of linguistic politeness routines used to redress FTA's, occur quite frequently in CMC.

A BROADENED CONCEPTUALIZATION OF "SOCIOEMOTIONAL RELATIONS"

Media richness theory (Daft, Lengel, & Trevino, 1987) and its early research findings suggested that the leanness of computer mediated environments stymied development of socioemotional relationships, that is, of warm, friendly, collegial relationships. One implication of this was that perhaps CMC environments would have to be reserved for more task oriented work, with FtF modes necessary for bonding and solidifying socio-emotional relations. More recent work, grounded in social information processing theory (Walther, 1992), suggests that in real-life (as opposed to laboratory) settings, or in laboratory settings but given more time, CMC users will eventually develop conventions and understandings that enable them to establish socio-emotional communication, for example through emoticons, through greater reliance on verbal channels, and so forth (Walther, 1995). This finding also pertains to what are termed "relational" ties, that is, role orientations along other dimensions such as dominance/inequality, trust, intimacy, casualness/formality (Chenault, 1998; Walther, 1995).

I here note that the way in which politeness research both treat and analyzes communicative texts goes against the grain of the conventional logic that is employed in extant research on group communication and on CMC dynamics. This is a logic whereby researchers allocate conversational acts into either task versus socio-emotionally oriented moves -- moves that are defined as *mutually exclusive* categories (Bales, Cohen, & Williamson, 1979; Slater, 1955; Suh, Hasan & Couchman, 2003). For example, Rice and Love (Rice & Love, 1987, also Pena & Hancock, 2006), using Bales' (Bales et al., 1979) group dynamics coding scheme, categorized as "task oriented" all speech acts in which someone "asked for information." Asking for information is an example of a *directive,* that is, any instance of using words to attempt to get another to do something,

Directives have been the subject of substantial attention among politeness scholars (e.g.: Austin, 1968; Ervin-Trip, 1971; Labov & Fanshel, 1978; Morand, 2000; Weigel & Weigel, 1985). Within the politeness framework, because directives intrinsically infringe upon others' face, we expect (and find) that politeness tactics are interwoven, bound up within the commission of virtually all directives. Again, even something as prosaic as a request for a file (or a pen), while admittedly task oriented, is a "task" oriented speech act that is invariably accompanied by liberal amounts of emotion-work, work designed to appease and buffer the face of others. *Task* and *socioemotional* work, from a linguistic point of view, are inextricably intertwined.

To provide specific examples here: 'asking for information', and 'giving an opinion', comprise two classic examples of what are clearly conceptualized as *task-oriented* behaviors. Yet it is in fact quite rare to hear these uttered baldly (i.e. with no mitigation whatsoever, see Figure 1). Thus rather than the curt "Resend the file" we much more likely encounter phraseology such as "Sorry, I must have lost it. Is it at all possible for you to resend that message – when you get a chance?". Similarly, rather than the bald: "You are wrong", one would more likely encounter phrasing such as "So, while I really like your ideas and I do appreciate your input and all of the work that you have put into this project, I'm not sure that we are entirely in agreement with regard to some of the conclusions that you have arrived at." In short, politeness – socioemotional phraseology – is interwoven into the very fabric of task related communicative acts.

For another example of how task and socioemotional forms can clearly be intertwined, consider Linde's (Linde, 1988; also see Gladwell, 2008) analysis of communication in airline cockpits. Linde's analysis of black box tapes from airline accidents showed that navigators and copilots used more polite, mitigated speech forms in communication directed to pilots. She further found the ambiguity of such constructions to be a causal factor in accidents. For example in one accident, just prior to landing a co-pilot suggested to the pilot that the "flaps are moving awfully slow" – a linguistically tempered way of stating "you're going too fast". Communicative sequences occurring during the landing of a jet airliner are clearly and crucially task-oriented, yet a concern with socio-emotional alignment is present here again.

Further contributing to an analysis of relational communication is the fact that politeness theory, with its emphasis on language, directs our attention to the rich possibilities inherent in verbal bandwidths. Indeed, through its specification of a number of discrete linguistic indices that carry relational meaning, politeness provides an empirically grounded, phenomenologically rich picture of just how words function to carry relational meaning. The tactics of politeness, as prior research indicates, can be reliably observed and thus quantitatively measured (Morand, 1996, 2000). Also note that Brown and Levinson (1987), in formulating the tactics they drew upon a large body of well-established and carefully researched linguistic and sociolinguistic findings.

Proposition 3: Even in verbal acts typically categorized as "task oriented" emotion work in the form of politeness does occur; this politeness (how much politeness and of what type and using which specific tactics) provides important cues regarding actors' relational orientation toward one another, or toward the group as a whole.

Proposition 4: The specific tactics of politeness can be reliably observed and thus quantitatively measured; as such they can be used in the assessment of relational ties within CMC, at a linguistic level of analysis.

THE EMOTION-WORK OF NEGATIVE POLITENESS

The distinction between positive and negative politeness also speaks to conceptualizations of what is entailed by "emotion-work" (Hochschild, 1983) within the CMC literature. Current conceptualizations of emotional or socioemotional communication in the CMC literature map onto positive politeness -- that is, with communicating or reinforcing affective ties such as friendship, social attraction, solidarity, and cohesion. But what of face's other aspect, negative politeness? While little acknowledged, the communication and demonstration of social distance, circumspection, formality and impersonality (which is accomplished via negative politeness) comprises a vital a form of emotion-work. For while positive politeness mechanisms help persons to bond with and to locate common ground, negative mechanisms are essential for preventing individuals from "coming too close," for buffering egos from the inevitable frictions and intrusions that accompany social relations.

Consider the adjectives used to anchor scale items for measuring social presence (the feeling one has that other persons are involved in a communication exchange) (Short, Williams, & Christie, 1976) in the CMC literature. Low social presence is described as impersonal, distant, unemotional, removed (Burke & Chidambaram, 1999). Negative politeness tactics, from the perspective of politeness theory, are integral to the establishment and communication of social distance and impersonality, and it takes a great deal of concerted linguistic work to operationalize these relational attitudes (Morand, 1995). As in Table 1, the use of "nouniness," of formal word choices, the impersonalization of pronouns, the work that goes into grammatical correctness, use of hedges, the subjunctive, and so forth -- all these entail intensive linguistic work. Indeed in FtF, to display no facial emotion (e.g.: a poker face) takes work; such can prove quite a difficult role performance (Morand, 1995). Similarly, within CMC, for one to imbue communication with an affective aura that appears purely technical and emotionally neutral, requires calculated and deliberate linguistic work.

To provide specific examples here: one might make speech more impersonal by eliminating pronouns "I" and/or "you" – for instance saying "*X* needs to be done" rather than "You need to do *x*", or "I want you to do *x*". Or, one might hedge when giving an opinion, saying "I *somewhat* disagree with you". One might also employ nominalization as a linguistic device (changing verbs or adverbs into nouns or adjective, which dilutes sender's active participation thus diminishing the immediacy of social presence; see Table 1). This would entail, rather than "I agree", stating it: "I am in agreement", or in lieu of "You communicate poorly", putting it: "Your communication is poor". Finally, one might use more formal word choices. Here, rather than "You should try harder", we find constructions such as "You should endeavor to improve". Or, rather than "We fired people", "We experienced a workforce reduction".

Goffman's concept of "virtual offense" (Goffman, 1967) illustrates the vital role of negative politeness in relational communication. Goffman suggests that actors faced with performing an FTA, or anything possibly construed as such, fear "virtual offense." A virtual offense is a "worst possible reading" (worst possible interpretation) by the receiver of a sender's speech act. Here the non-communication of a polite attitude – an absence or insufficiency of defrayal -- is read not merely as the absence of that attitude, but as the inverse, as the holding of an aggressive attitude. For example, simply omitting "please" or "thank you" at a strategic conversational juncture could in its worst light be read as a flagrant and intentional snub. Or, while the query "are you kidding?" may be interpreted as straightforward inquiry as to whether another is serious or not, an alternate (and worse) interpretation is of a sarcastic slight, that the sender really means "how could you be so utterly stupid as to say something like that?" In short, because these attributional processes make all communication potentially volatile, actors habitually insert negative politeness into communication acts to guard against the possibility of a worst reading. (And it is interesting that Goffman chose the term *virtual* offense. Because these refer to individual's inner attributional states – they are surely no less present in virtual communication environments).

Proposition 5: The maintenance of harmonious social relationships in CMC depends not only upon the exchange of positive emotional messages (e.g.: message content relative to friendship and social attraction: liking or noticing qualities of others, mention of common interests, gossip, joking, emoticons, and so forth). The linguistic demonstration of carefulness, circumspection, heedful awareness of the other's desire for autonomy and self direction, and so forth - also comprises an indispensable form of emotion-work.

POLITENESS CAN ENRICH OUR UNDERSTANDING OF OTHER RELATIONAL TIES

The CMC literature examines a variety of relational ties, including power, impersonality, cohesion, attraction, egalitarianism, trust, and task versus socio-emotional behaviors (Hiltz & Turoff, 1994; Pena & Hancock, 2006; Walther, 1995). Anthropological and social psychological literatures (the forbears of politeness theory) suggest that there exist two generic, broad-based role orientations under which many other forms of relational orientation may be classified. These are 1) social distance (distant versus close role relations) and 2) power distance (power relationships) (Brown & Levinson, 1987; Brown, 1965; Brown, 1998; Radcliffe-Brown, 1952). The notion of generic role orientations is akin to factor analytic techniques in statistics, that is, what at first glance appear to be a number of disparate role orientations, in fact share basic underlying commonalities.

Social distance, referencing a horizontal relation, is said to be high among individuals who are relative strangers, or who act 'as if' distant from one another. Here role behavior is characterized by mutual formality, impersonality, and circumspection -- essentially the mutual exchange of negative politeness. Low social distance describes relationships among social intimates or friends. Here communication and behavior consist of displays of camaraderie, social solidarity, and in-group language -- essentially displays of positive politeness (Brown & Levinson, 1987; Holtgraves & Yang, 1990).

Power (or status) distance, an important variable in CMC research (Weisband, Schneider, & Connolly, 1995), references a vertical dimension. Power is a central determinant of polite usage, for in power (dependency) relations subordinates strive to stay in superiors' good graces (Argyle, 1988; Goffman, 1967; Hall, 1966), using politeness rituals, particularly negative forms, to avoid impinging on the psychological territories of higher status actors (Brown & Ford, 1964; Fraser & Nolan, 1981; Holtgraves, 1994; Linde, 1988; Morand, 1996, 2000).

High status individuals use less politeness, but research also shows they draw upon positive tactics with greater frequency. For example, in languages with pronoun variants (e.g.: "tu" & "usted" in Spanish) the familiar form is used "down," the formal "up" (Brown & Levinson, 1987). Powerful actors more often engage in phonological slurring and colloquial usage (Brown & Gilman, 1991; Morand, 1995), and initiate joking and laughter (Coser, 1959; West, 1984). Thus, the presence of such asymmetric exchanges in transcripts can be used to infer a status relationship. Conversely, egalitarian relations are characterized by exchange of relatively equivalent levels of linguistic regard.

Social and power distances share commonality with other relational variables used in the CMC literature. For example, friendship, social attraction, group member cohesion, coding categories such as "shows solidarity" (Bales et al., 1979) -- all these correspond to the notion of close social distance. Similarly, impersonality (Walther, 1992), formality, coldness, "bureaucratic or official sounding," map onto high social distance.

For some concrete examples of the above generic role orientations, consider how two basic relational building blocks – naming and greeting behaviors – would play out in electronic communication. Two individuals who are on a socially close and equal footing would tend to employ a mutual first name form of address (addressing one another by first name). Individuals in a socially distant but equal relation would in contrast exchange mutual title-last name (e.g.: addressing one another by Mr., Ms. Dr. Smith, and so on). Alternatively, exchanges may evidence an asymmetry of forms of address, this being indicative of a power relation (e.g.: first name spoken 'up', title-last-name 'down'; Brown & Ford, 1964; Brown & Gilman, 1991; Slobin, Miller, & Porter, 1968). Furthermore, Brown and Ford (Brown & Ford, 1999) showed a variable as simple as a daily greeting – the employment of "Hi" versus "Good Morning" -- to predictably follow this same template. That is, they found "Hi" to be exchanged among dyads who were social familiars and equals. "Good morning" was exchanged among more socially distant communicants of relatively equal rank. And here again, in a power unequal relation (e.g.: a boss and subordinate at work) the tendency was for the superior part to employ "Hi", while the more formal "Good Morning" was spoken 'up'.

The critical point here, and essential contribution of politeness theory to CMC research, lies in the robust framework provided by the model of positive and negative face. For we can use these two aspects of face (and their operationalization via the specific tactics of politeness) to understand how it is that the diverse relational orientations noted above and found throughout the CMC literature, are in fact variations of one generic and universal set of role orientations. Further, the specific tactics of politeness may thus prove useful to CMC researchers in measurement of these role orientations. Present research often relies upon trained coders to read transcripts of interaction, and to then allocate remarks into various categories. While such observational schemes have been shown to be reliable, knowledge of the politeness tactics and their linguistic operationalization can enable researchers to focus on the very language used. Obviously, trained coders allocate remarks into various categories based upon their discernment of linguistic cues, including politeness. But the point here is that coders are able to do this because they themselves are expert users of language, yet their interpretive processes occur at largely tacit levels.

Proposition 6: Power distance and social distance are two overarching, generic role orientations. High social distance is characterized by the mutual exchange of negative politeness, low distance by mutual positive exchanges. Status relations are characterized by a distinctive asymmetry of politeness (noted above), egalitarian relations by symmetry in exchanges of politeness.

Proposition 7: Positive politeness shares significant commonality with relational ties often described in the CMC literature, such as friendship, group cohesion, solidarity, and intimacy.

Proposition 8: Negative politeness shares significant commonality with relational ties such as impersonality, formality, bureaucratic, and cold/distant seeming.

THE EVOLUTION OF POLITENESS NORMS IN CMC

Two basic rules of communicative competence guide all social interaction: 1) make yourself clear, 2) be polite (Leech, 1983). Clarity and consideration are opposing communication principles, and often do clash, for to be polite entails being ambiguous, while to be straightforward can offend. For example, for many tactics water down "illocutionary force" (Searle, 1969) -- the very intent behind speech acts. Thus the imperative: "I want that report on my desk by 3 p.m.," is clear yet brusquely offensive. But the alternative: "If it's not too much trouble, could you get me that report by around 3 or so?" is so vague as to diminish the likelihood of the report being done on time.

This clash between message clarity versus consideration is particularly crucial in organizational contexts -- where many applications of CMC exist, and are studied. Given organizations' intrinsic emphasis on productivity and performance goals, the likely tendency is for efficiency constraints to eclipse the need for consideration, but with dysfunctional consequences.

Related to this is the fact that in FtF nonverbal cues play a substantial role in the contextualization of politeness. For example, questions are recognized by rising inflection; Brown and Levinson (1987) even suggest that negative politeness is generally accompanied by higher voice pitch. Absent such cues (i.e.: in the leanness of CMC) one would anticipate a greater tendency for message misinterpretation. Indeed, this may comprise one partial (but heretofore unexplored) explanation for computer-mediated 'flaming'. While flaming is linked to the lack of social context cues, including nonverbal behaviors, the basic cause is nevertheless attributed to lowered inhibition, greater excitation, and self-absorption - emanating from the anonyminity of CMC (Sproull & Kiesler, 1986). It may be, however, that in some instances 'flaming' arises from verbal messages that would not have been abrasive in FtF, but turned problematic (face-threatening) in CMC, due to lack of nonverbal cues. Here, however, flaming is defined not by a sender's intent, but by the receiver's interpretation of a message.

More importantly, messages embedding politeness are certainly not static; senders continuously adjust their level of phrasing, based upon whatever tradeoff they wish to make between clarity and consideration. One possibility is that senders will eventually gain awareness of which aspects of written messages make them vulnerable to misinterpretation (worst possible readings), and learn ways around this. One way to make up for the lack of non-verbal accompaniments would entail becoming less polite – more direct and straightforward in CMC. A downside of this would be the appearance of rudeness; therefore senders may take the trouble to provide explanations for those messages with dual interpretations. Or, and something for which some evidence exists, senders may adorn messages with indices of positive politeness, such as through use of emoticons, acronyms such as "jk" (for "just kidding,"), and so forth (Walther, 2001).

Indeed, if in adaptation to leanness senders wished to be more direct and forthright -- less polite -- this would be predicted to result not only in balder, more direct speech acts, but also in increased use of positive politeness. This prediction is based on Figure I, which shows positive politeness to be more direct than negative forms. This is not to say that CMC would overall be more friendly and "backslapping" than FtF, but that the ratio of negative to positive politeness would change in the noted direction. Messages embellished with positive politeness would be clearer, because while negative politeness defrays by directly introducing ambiguity into message content, positive politeness generally allows message content to stand, while pacifying possible face-threat by encircling it with markers and expressions of kinship/likemindedness/solidarity.

To provide a simple example of such: consider a simple request for information. Within a negatively polite phrasing, such as "If possible, I like to get it by around three", the *hedge* "if possible" injects an ambiguity that may very well diminish the likelihood of the request actually being complied with in a timely manner. But in contrast, there are alternative phrasings that encode the same communicative intent, but while employing positively polite forms to perform the work of mitigation. For instance: "I need it by three! ☺", or Hey, I must have it by three; I owe you one!" In these instances there is still politeness, but a politeness that does not ambiguate the communicator's intent.

Proposition 9: Because the leanness of CMC increases the ambiguity inherent in polite constructions, CMC users may compensate by being less polite, more direct. If so, we would expect the ratio of positive to negative politeness to increase in CMC, in comparison to FtF.

CONCLUSION

Anecdotal stories and editorial discussion of CMC etiquette (really the lack thereof) conceive of politeness as would an Emily Post -a desirable social grace. CMC users are reportedly often impolite, and this is descried, often with prescriptions for improvement (such as to begin and end e-mail messages with a proper salutation). This is as it should be. For while politeness theory represents the value-free study of a set of linguistic phenomenon, and their variation as a function of certain social, contextual, and cultural variables, at the level of societal and group practice there certainly exists a normative right and wrong to politeness. This is because there is good reason (the maintenance of social order; the orderliness of communication; the need for individuals to abide by the group's rules for what constitutes respectful treatment of other persons) for societies (or groups) to develop norms regarding the appropriate display of consideration.

And yet, most societies or cultures are by definition longstanding, and thus have had substantial time in which to work out their own unique rules and nuances for expected displays of politeness. In contrast, CMC environments and their community of users are both relatively novel, and in flux (i.e. technology is changing rapidly). It is thus reasonable to venture, that as CMC becomes more a mainstay of life that normative routines regarding politeness as well as other aspects of relational communication, will begin to jell (e.g. Kiesler, 1997). The paradigm and specific measures provided by politeness theory should enable researchers to develop a more nuanced and concretely empirical understanding of these processes of norm formation.

Finally, while this is not the central thrust of the current paper, this author notes that there are substantial and significant implications of politeness theory for the fields of artificial intelligence, of voice recognition, and of voice synthesis. Indeed the day is already here when we matter-of-factly verbally communicate with computers. Voice recognition software and computer synthesized voices are increasingly reaching the market and a variety of product areas. Of course, computers are, at least for now, of sheerly technical instrumentality, in that they possess little sense of how or why humans have feelings. Yet, many computers are already programmed to use politeness tactics and techniques in crude but highly effective ways: "Welcome, John P. Smith, please insert your card with the black stripe down"; "Thank you for using AT&T"; "Have a nice day". How would we feel if computers did not employ these polite catchwords that we by now have come to take for granted? Are these superfluous, mere interactional gratuities, or are they crucial for buffering and mediating the emotional contingencies and fragilities of exchange relationships, even if these are human-machine exchanges? Perhaps ominously, perhaps not, given specific knowledge of the application and weightiness of the specific politeness tactics, these indices might be might prove useful in devising expert systems that would enable computers to be more "user friendly", to become more harmonious to the sensibilities of the humans with whom the interface.

In sum, I suggest that politeness theory can prove useful as a tool for CMC research. It is hoped that the theoretical perspective offered here will cause researchers to perceive interaction sequences in CMC in new, and interesting ways. I further hope and suggest that the operational measures of politeness, particularly the specific positive and negative tactics, will also prove to be useful to researchers as they analyze, and search for relational regularities and patterns, within CMC transcripts.

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KEY TERMS AND DEFINITIONS

Computer-Mediated-Communication: Communicative exchange that occurs over computers.

Face: The positive value individuals claim for the public self they present.

Politeness: Phrasing things in such a way as to show consideration for the face of others.

Relational Communication: Communication sequences focusing on affective ties. on creation and maintenance of social relationships.

Socioemotional Communication: Communicative exchange focusing on development or maintenance of affective ties.

Task-Oriented Communication: Communicative exchange focusing on affectively neutral instrumental activities that are related to task accomplishment.

Virtual Team: A group of individuals using information and communications technologies to collaborate on work-related tasks.

ENDNOTE

1 This might seem rather obvious or implicit, but my point and contention is that literature in the computer-mediated tradition, very often, insufficiently draws on the existing literatures in sociolinguistics, social psychology, or micro-sociology as a way of theoretically and conceptually grounding relational communicative processes. Thus, were one to take a more explicitly dramaturgical perspective this would provide conceptual leverage that would help researchers and readers to more adequately define and capture the linguistic and communicative phenomena of import.

Chapter 51
New Media and Cultural Identity in the Global Society

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ABSTRACT

New media has been the main force accelerating the development of globalizing society in the last two decades. With its digital, convergent, interactive, hypertextual, and virtual nature, new media has brought human interaction and society to a highly interconnected and complex level. The rapid transformation of human society due to the impact of the convergence of new media and globalization directly influences the construction and development of cultural identity. The emergence of new media and globalization not only breaks through the limit of the traditional time and space, but also may challenge the meaning of cultural identity. The purpose of this chapter is to unravel the intricate relationships between new media, globalization, and cultural identity through the process of definition, interpretation, and critical analysis.

INTRODUCTION

The rapid development of communication and transportation technologies has shrunk the size of the globe and the scope of the world, in which the interdependence between people and people, culture and culture has become a norm rather than an exception of human society. The trend of interconnecting people from every corner of the world is gradually leading people to the so-called "global village" (McLuhan & Fiore, 1968), "global community" (Holt, 2000), "cyber-communities" (Cook, 2000), "virtual communities" (McChesney, 1996), or "wired cities" (Dutton, Blumer, & Kraemer, 1987). All these transitions of human society, along with the ending of the Cold War, inevitably induce the restructure of power and changes of ideologies in the process of political interaction among nations. They also yield opportunities for scholars to explore the impact of new technology on the future development of human society. As argued in this chapter, the change of human society is especially reflected

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in the transformation of cultural identity due to the impact of the convergence of globalization and new media.

Among these scholars, some investigated the influence of the information age formed by new media on human society from political, economic, global, and other perspectives (e.g., Berger & Huntington, 2003; O'Meara, Mehlinger, & Krain, 2000; Ye, 2003). Others attempted to examine the future direction of human interaction from the aspects of intercultural communication, international business and management, and international negotiation and problem solving (e.g., Adler, 2002; Harris, Moran, & Moran, 2007). More recently, scholars began paying attention to the construction, negotiation, maintenance, and disintegration of cultural identity in the context of globalization (e.g., Dai, 2007; Holmes, 1997; Halualani, 2008; Morley & Robins, 1995; Tan, 2005). However, very few scholars directly examine the relationship between cultural identity and new media in the context of globalization. The purpose of this paper was then to bridge this gap of research by analyzing the mutual effect between new media and globalization, and the impact of the convergence of new media and globalization on cultural identity. The following section first stipulates the concept of globalization, followed by the discussion of the relationship between new media and globalization, and finally expounds the impact of the convergence of new media and globalization on cultural identity.

GLOBALIZATION

The advent of the new century, after years of immersion in the capitalism system, may mean a gradual transformation of the old society into a new one which demands a different way of thinking and lifestyle. The globalizing society represents a state of competition and co-existence among different cultures. Although the history of contact between different societies or ethnic groups has been thousands of years (Lubbers, 1998), the impact of globalization on modern society is far beyond what people could imagine a few decades ago. In economy, for example, to succeed in global competition a modern company must possess the ability to seek for open markets around the world, to gain enough profits through effective management in global business transactions, and to meet the needs of global clients by acquiring the knowledge and understanding of local markets (Gupta & Govindarajan, 1997).

From social and cultural perspectives, globalization has a significant impact on sense of community, establishment of civic society, and cultural diversity (Chen & Starosta, 2000). Globalization has redefined the meaning of community with a new look at inclusiveness and collective sense of identity. The wall between traditional communities also collapsed due to the constant flush of globalization. This transformation, based on extension and expansion from the local to global level, provided citizens in the 21st century opportunities and challenges for learning how to harmoniously co-exist and develop an ideal future world.

Nevertheless, the coming of a global society won't necessarily guarantee that a new sense of human community will follow. A new sense of community requires members to fully involve in the construction of the global society through a learning process. It aims to tolerate the differences of races, classes, cultures, religions, and genders, and to cultivate the capacity of solving the problems or conflicts caused by stereotypes, discrimination, and prejudices. In other words, the ideal goal of the new global community is to develop a space in which members can co-exist peacefully through communication and dialogue.

The change of the meaning of traditional community demands a redefinition of the concept of citizenship, which deals with the relationship between local community, national community, and global community. For example, could these communities be identical? If not, how do citizens cope with the potential conflicts caused by differences of the three levels of community through negotiation, dialogue, and readjustment? Ideally, in the global society no citizens in each level of community have the right to discriminate the other by using the power induced from cultural differences. Hence, to integrate diverse cultural identities through education in order to establish a new global civic culture, to develop a voluntary multiculturalism, and to promote citizens' global communication competency become the priorities on the agenda for facing the impact of globalization (Chen, 2005; Lynch, 1992).

As for cultural diversity and cultural identity, both are the two sides of a coin. They mirror the dialogical relationship and dialectical tension between the two opposite forces of cultural heterogeneity and homogeneity, or cultural pluralism and particularism (Chuang, 2000; Zhong, 2000). Naisbitt (2000) labeled this complex and bewildering phenomenon "global paradox," which dictates that the more globalized the world becomes, the more powerful its smallest players will be. How to foster a new way of thinking and behavior in order to confront the impact embedded in cultural diversity and cultural identity is another challenge global citizens have to face.

The above discussion shows three important characteristics of globalization. First, globalization is a highly dynamic and dialectical process. It creates a possibility not only for reaching a harmonious state of cultural homogeneity, but also for encouraging different ethnic groups to pursue their own cultural identities. Although the process of globalization appears to be an embodiment of cultural imperialism based on Westernization, it also provides a potential opportunity for marginal cultures to voice their needs and emphasize cultural pluralism. Thus, balancing the battle between globalization and localization, or cultural diversity and cultural identity, is a key to building a successful future of human society.

Second, globalization is all pervasive. Examples of the pervasive nature of globalization include global economic and business activities, conflicts and dialogue among different religious groups, widespread population migrations, integration and separation of different ethnic groups, and cooperation and conflicts among different cultures. The mutual penetration of different groups caused by globalization may result in the change of human perception on time and space, the readjustment of social structure and function, and the nature of confrontation between cultural values and religious beliefs. It will gradually build a foundation based on interactive interconnectedness, in which human society will no longer be an isolated island. Rhinesmith (1996) argued that the inevitable interdependence of human society driven by globalization demands people not to question the reality of globalization, but to pursue and maintain an inclusive global community, where members know how to develop productive interaction in this interconnected network.

Finally, globalization is characterized by cultural hybridity. The trends of the blurring national boundary, the multi-directional movement of ethnic groups, the large migration of population, and the restructure of political ideologies open up a vast space for the further development of cultures. Through cultural exchange and interaction, acculturation and assimilation between cultures become evident, which leads to a state of cultural hybridity. On the surface, although cultural hybridity looks like an effect of the penetration of dominant Western cultures into the territory of marginal groups, Walters (1995) argued that cultural hybridity is a process of mutual penetration between the center and the peripheral, because only through the mutual exchange process, could the mixture of different cultures come into existence. Nevertheless, an ideal state of cultural hybridity is not founded in autocratic control, but is to search for a new meaningful order through cultural negotiation and exchange.

NEW MEDIA AND GLOBALIZATION

The looming of "new" media is not because of its form, but because of its function. The existence of new media is based on its ability to continue the traditional form of interpersonal and mass media, but functionally, after overcoming the limitation of one-to-one interaction of interpersonal media and the inability of mass media to individualize messages, new media inherits the capacity of equally controlling messages in interpersonal media and the capacity of individual control of messages in mass media (Crosbie, 2002).

The new media that accelerates globalization mainly came from the integration of several types of technologies from the last century, including digital communication in the 1940s, Transmission Control Protocol/Internet Protocol (TCP/IP) in the 1960s, APRANET and Personal Computer (PC) in the 1970s, HyperText Transfer Protocol (HTTP) in the 1980s, and the Internet in the 1990s. In other words, new media integrates computing/information technology, communication network, and digital media and information (Barr, 2000). The advent of new media brought forth the so-called "information revolution," following agricultural and industrial revolutions, in human society. New media possesses five features: digitality, convergency, interactivity, hypertextuality, and virtuality (Flew, 2005; Guan, 2006; Lister, Dovery, Giddings, Grant, & Kelly, 2003; Manovich, 2003).

First, new media is a synonym for "digital media." Digital media transforms all texts, voices, and images into a simple binary code of 0 and 1, which means transferring the analog nature of traditional media such as newspapers into digital nature like modern computers. The conversion from analog to digital immediately allows the media to perform all kinds of mathematical functions for data stored in a digital form; an entirely different system of media production and marketing is therefore shaped. The conversion also indicates the dematerialization of media text. It allows users to compress a large quantity of information into a very small space, so that the information can be easily retrieved and manipulated.

Second, convergency refers to the success of new media in combining the forms and functions of electronic computing, electronic communication, media, and information. According to Barr (2000), the convergent function of new media is reflected in three aspects. First, functional convergence gradually conveys information and media contents to users through computer information technologies and broadband communication networks. The function can be demonstrated by the superior performance of the Internet in the 1990s, as compared to the mobile phones, fax machines, compact disks, satellites, and personal computers commonly used in the 1980s. Second, industry convergence promotes the alliance, acquisition and merging of media industry. The merging between Time and Warner, AT&T's acquisition of TCI, and the combination of Microsoft and NBC as MSNBC are a few good examples of industry convergence. Finally, products and services convergence refers to an integrated form of media and information industry that uses the combining force of broadband facilities, digitalized functions, and product services to meet customers' needs. Examples for products and services convergence include the transfer of capital in e-transaction, working at home via the Internet, online business transactions, multi-function cell phones, Playstation, X-Box, and other digital TV products and services. The convergent function of new media has successfully connected materials, transportation, products, and services in human society.

Third, unlike digitality and convergency, interactivity remains as an ideal goal new media aims to achieve. Interactivity specifically refers to the degree of choice and control when new media users utilize information resources and the system. For example, the Internet is a highly interactive new medium. In the process of interaction via the Internet, participants not only are able to simultaneously produce data, create a database, and develop a new form of information, but also to reflect, revise, and reply to those already existing data and information. The function of maximizing consumers' choice of information makes new media a powerful tool in human interaction (Asrseth, 1997; Newhagen & Rafaeli, 1996).

Furthermore, interactivity of the new media consists of two indispensable elements: interconnectivity and interoperability. Interconnectivity refers to the accessibility of interaction among different networks, and interoperability refers to the convenience of retrieving information though different operational systems. In a nutshell, the interactive nature of new media directly challenges the emphasis on norms, order, organization, and intellectual autocracy in the traditional society by advocating flexibility, right to choose, creativity and innovation, and the liberation of the human mind (Barry, 2001).

Fourth, hypertextuality refers to the networking function of new media, i.e., the new media allows a large quantity of information to freely move around within a series of interconnected nodes in the network. The networking structure of new media is different from the traditional linear transmission. It resembles the associative function of the human brain to spontaneously connect information and form a global networking center, in which the dissemination of messages becomes more flexible, open, and adaptive to different patterns. Castells (2000) argued that the networking function of new media has changed the nature of life experience, production process, power distribution, and cultural patterns in human society. The new network society has altered the logic of social interaction, and has developed a new economic system that demands capital flowing and business management to be fulfilled within the global network. The incident of the 911 terrorist attack shows the great political impact of new media's networking function, through which Bin Laden used the networking to effectively command Al-Qaida. Moreover, the free movement of information in the network displays the hypertextualization of information, because information flowing within the network is constantly revised and restructured. As Bolter and Grusin (1999) pointed out, the constant switch of information, including the visual text, may bring human consciousness an unexpected influence.

Finally, the virtuality of new media has two meanings. One is that through the interaction in cyberspace produced by simulation and image technologies, people develop virtual experience and reality. This virtuality integrates the functions of visual, tactile, and auditory senses of human beings and causes a gap between reality and virtuality. The other is that virtuality is the cyberspace felt by interactants during the communication in the network. Instead of the real physical space based on face-to-face interaction, cyberspace refers to the invisible space existing, for example, in telephone communication (Mirzoeff, 1999). Inside the cyberspace, participants can easily alter their personality, gender, social status, and physical appearance, and establish various connections and virtual communities by crossing over spatial, political, and other boundaries. This illustrates that the virtual space created by new media not only challenges the traditional perception of "reality," but also impacts the way people develop their own self-consciousness and identity. As scholars observed, a "cyberculture," "net nation," or "cybersociety" is emerging in human society (Bailey, 1997; Baym, 1995; Jones, 1995; Silver, 2000).

All these features of new media highlight the reality of "viral communications" (Lippman & Reed, 2003). Based on Focucault's (1988) view that technology development may bring in crisis or disaster in every aspect of human society, Miller and Bruenger (2007) analyzed the potential impact of new media on human society. They argued that innovative communication technologies have transformed the mass system of postmodern communication, market, and cultural patterns into a form of viral communication. New media transfers the capacity for production and distribution to consumers and leads the consumers to demassify culture by co-opting distribution and usurping production, which in turn causes the dedifferentiation of public and private spheres and the commodification of knowledge and experience. As a result, "what appeared to be cultural globalization… is in fact evidence of the dealignment of ideas and institutions and ultimately, the liberating effects of the decivilization of culture" (p. 93).

There are more debates over the dialectical relations between new media and globalization among scholars. Some argued that human beings should avoid being over-superstitious of the power of communication technologies. For example, Garnham (in Lee, et al, 2007) mentioned that theoretically new media is nothing new, because it is incapable of bringing significant changes on the way people perceive the world. All those assumptions induced from new media, including the powerful and convenient digital communication, the expectation of direct democracy, and the solving of social conflicts through complete enlightenment, are but a dream. In other words, new media is only one of the factors that shape people's behaviors and minds. Ferguson (1992) proposed even earlier that there are many myths regarding the impact of new media on the emergence of global society. She pointed out that the meaning, evidence, and evaluation of globalization is plagued with ambiguity and uncertainty, which demands more research to clarify its nature and scope.

In regard to the meaning of globalization, although the regional geopolitics has replaced the traditional political structure based on nation-state, it is unclear whether globalization is a historical process still under construction or has formed a global cultural and economic system. In terms of evidence, since the 1980s, globalization has produced a great impact on politics, science, economy, technology, deregulation, and free market, especially in North America, Western Europe, and Japan, but this does not necessarily indicate that the time-space compression caused by globalization can lead to a homogenized global metaculture in politics and culture. The expectation of reaching a homogenized global metaculture only shows the lack of understanding of the role social class, race, ethnicity, clan, or religion plays in the formation of social hierarchy in human society.

As to evaluation, people have paid too much attention to nations and business organizations that were benefited politically and commercially, but neglected the marginalized groups whose interests were exploited. It is naïve to view globalization as a one-way movement, or to treat it simply as a process based on a neutral and transnational world view formed by the interconnectedness of new media and the exchange of materials and symbols. These arguments demonstrate that it is still too early for technological determinists to claim that a global or universal culture has come to human society.

Other scholars argued that the convergence of new media and globalization has brought to human society an unstoppable revolution. For example, Du (in Lee, et al, 2007) indicated that new media revolution has greatly impacted the way people perceive the world, because the fact of modern society is that "new media is humans; virtuality is reality, and structure is content" (p.11). "New media is humans" indicates the spontaneous integration of terminal user and information, which becomes the core rather than just a research topic of new media interaction. "Virtuality is reality" emphasizes the similarity of the real feeling between cyberspace interaction and message exchanges via telephone. The virtual reality in cyberspace is actually the reality itself. Finally, "structure is content" implies that the media content is realized through the structure which possesses self-organizing functions. The self-organizing structure can produce meanings by itself. This indicates that when people participate in an interaction, they are simultaneously joining the process of structuring and restructuring to produce various meanings of the content. In other words, structure and content are inseparable.

Chen (2007) focused on the application of new media in the educational system in developed and a few developing countries in the past two decades. He concluded that new media has gradually changed thinking and behaviors of the new generation in those countries. For example, Mammett and Barrell (2002) and Olson and Pollard (2004) indicated that new media would definitely cultivate a new generation differentiating from their last generation in cognition, emotion, attitude, and behavior, because new media provides various functions. Those functions include that new media can (1) new media can switch content immediately between different media and provides a new aesthetics of information design, (2) intentionally create the virtual experience by providing participants fully involved and multi-sensory activities, (3) produce media content through free sampling and provides participants a space for exercising imagination and creativity, (4) allow visual/video games online to give participants an experience of integrating visual images and textual narratives, (5) help participants gain an opportunity of performing and producing text simultaneously through the manipulation of production and changing the reality, and (6) develop a non-linear thinking pattern that functions to freely switch the users' cognitive system during the interaction.

Jones (1995) further mentioned that new media technology has come to a dilemma that, on one hand, it can be utilized to improve living standards but, on the other hand, it can bring in negative impacts to human society. Besides, in addition to the influence on community and social relations, the convergence of new media and globalization greatly influenced the adjustment to community identity, the establishment of civic society, and the performance of global citizenship. As Turkle (1995) pointed out, in this globalizing society, what matters most to us is "the ability to adapt and change – to new jobs, new career directions, new gender roles, new technologies" (p. 255).

Finally, Lister, Dovery, Giddings, Grant, and Kelly (2003) summarized the impact of the convergence of new media and globalization into six categories: (1) New textual experiences - New media gives people diverse experiences by bringing about new forms of media usage, textual style, and entertainment; (2) New ways of representing the world - The interactive multi-media provides a new way of representing experience in the virtual space; (3) New relationships between users and media technologies - New media changes the way people receive and process information and interpret the hidden meaning embedded in media technology; (4) New experiences of the relationship between embodiment, identity, and community - New media transforms the users' experience on self and society in the realm of time and space at both local and global levels; (5) New conceptions of the biological body's relationship to technological media - New media brings about different challenges of differentiating new media from machine, and reality from virtuality; and (6) New patterns of organization and production - New media lays impact on the readjustment and integration in culture, industry, economy, use, ownership, control, and constraint.

Although the debates help us better understand the impact of the convergence of new media and globalization on human society, it seems to offer no help in resolving the real problems and lead people to ignore the commonality of the arguments of the two groups. The common ground of the arguments is that the existence of new media is a fact, so is the rapid movement of the globalization trend. The mere difference exists only in the scope and salience of the impact from the convergence of new media and globalization. A good example is the case of "Back-dorm Boys." In 2005 two previously unknown college students in Canton, PR China gained overnight fame by the online spread of a video showing their lip syncing Backstreet Boys' popular songs. Their works were first uploaded on the intranet of local communities and then appeared on youtube.com in the form of Mandopop that was prevalent in the Chinese entertainment industry. The two amateurish artists soon became well-known to a much greater public and received American mainstream media coverage, and in 2006 they even became spokesmen of Motorola cell phone and sina.com.

NEW MEDIA, GLOBALIZATION AND CULTURAL IDENTITY

Globalization leads to widespread population migrations on a global level. More and more people from different countries relocate and join new communities. In order to maintain, construct, and reconstruct cultural or ethnic identity, it is common for immigrants to use media as a tool of communication. For example, Lum (1996) found that Karaoke, as a mixture of several different media, has been utilized to facilitate Chinese Americans in Chinatown to present, maintain, construct and reconstruct their social and cultural identity. Long and Chen (2007) also discovered that internet usage significantly influenced adolescents between 12 and 18 years old in regard to their decision-making process, identity formation, self-reflection, and ego strength.

The power of this impact comes from how the virtual community provides an environment in which members can freely express their opinions and foster a feeling of belonging. The sense of being a member of the community would therefore satisfy members' social and psychological needs (MeKenna & Bargh, 1999, 2000). The continuing interaction in the same community inevitably would lead to the development of members' identity from personal to the level of social or cultural identity. Postmes, Spears, and Lea (1998) further found that members in a community could flexibly adjust, readjust, or even remove the boundary between personal and group identity. The phenomenon shows that identity changes in different contexts. Moreover, the group sense formed in real life and cyberspace are similar; both are characterized by the features of activities, social organization, language, and identity. However, the virtual community is less interconnected, less limited by time and space, and more heterogeneous (Van Dijk, 1998).

The formation of cultural identity is based on the interaction and negotiation between the self and the affiliated group. When personal interests and beliefs match the experience in a community, the intensity of group or cultural identity will be gradually reinforced (Martin & Nakayama, 2006). In other words, cultural identity is a unique product of group communication in a specific context; it is formed through the process of community members' interaction, negotiation, challenge, and intensification. Collier (1994, 2000) stipulated seven characteristics of cultural identity: (1) It is a process of self-perception, which includes both avowal by the individual and ascription by others; (2) It is presented and organized through core symbols, labels, and norms; (3) It takes individual, relational, and communal forms; (4) It is enduring and changing over time; (5) It consists of affective, cognitive, and behavioral elements; (6) It comprises both content and relationship levels of interpretation; and (7) It shows various degrees of salience and intensity in different contexts. All these characteristics show the fluid, dynamic, and communicative nature of cultural identity, which often subjects to transformation in a changing environment.

According to Chen (2003) and Phinney (1993), the development of cultural identity usually goes through three stages. The first is the unexamined cultural identity. In this stage the individual does not yet sense the existence of cultural identity, which results in the full acceptance of information from surroundings. Cultural identity is exemplified by the exclusion of other groups in the forms of cultural stereotype, cultural prejudice, parochialism, or ethnocentrism. The second stage is cultural identity search. The individual begins to examine, question, criticize, reinforce, and continue to accept or challenge his or her own cultural identity. The final stage is cultural identity achievement. The individual ultimately builds up confidence for cultural identity. This is also the stage where the individual can become a "multicultural man" (Adler, 1998), a person with the abilities of flexibility, adaptability, openness in different circumstances and ready for challenges of cultural differences. This stage has extended cultural identity to the level of intercultural identity that secures intercultural communication competence (Kim 1994, 1996).

There is no consistent way to classify the types of cultural identity; however, Belay (1996) argued that when scholars discuss cultural identity in the context of globalization, coherence and consistency are the two elements that must be taken into account. Belay pointed out that cultural identity could be classified into six forms: sociological identities, occupational identities, geobasic identities, national identities, co-cultural identities, and ethnic identities. Sociological identities deal with the issues related to gender, age, social class, religion and disadvantaged groups. Occupational identities focus on the issues related to working environment. Geobasic identities refer to racial identities, dealing with the condition of different racial groups living in the same geographical area. National identities, based on the civil right and obligation of citizens, are the most dominant type of cultural identities in modern human society. Co-cultural identities indicate the cultural identity of different racial groups within a county, and ethnic identities refer to the similar community sense among people with different physical characteristics, languages, religious beliefs, or family history within a county. Belay's classification demonstrates that cultural identity is a multi-faceted concept.

Belay further specified five attributes of cultural identity, including (1) temporality – that cultural identity is a product of historical development; (2) territoriality – that cultural identity is formed through an avowal process of a group of people in a specific and meaningful geographical area; (3) contrastivity – that cultural identity is a distinct collective consciousness developed from the sense-making process of a group of people; (4) interactivity – that cultural identity is embedded in the process of social interaction, which exists between individuals, groups, and interpersonal relationships; and (5) multiplicity – which is illustrated in the six forms of cultural identity previously described. These attributes, in coordination with Collier's (1994, 2000) illustration, indicate that cultural identity is constantly in the process of change. The rest of this section describes the impact of globalization and new media on cultural identity.

The construction and reconstruction of cultural identity would no doubt be affected by the interactional space embedded in the global connectedness of new media. Two of the impacts are most prominent: the compression of time and space and the rise of international organizations (Ahmed & Potter, 2006; Belay, 1996; Boulding, 1988). These impacts may not only organize and reinforce the existing cultural identity, but also play a role of shaking the root of cultural identity. As Hampton and Wellman (1999) found, the use of electronic networks could weaken or strengthen the relational intensity between people and community. The finding demonstrates the double-edged influence of new media on cultural identity.

The cohesiveness of collective identity must be maintained by time, shared memory and lifestyle, and common historical tradition, while its continuity can only be sustained through the geographical space built on the distinction between "us" and "them" (Morley & Robins, 1995). New media creates a new time-space relation. By condensing the space and shrinking the time, new media enormously reduces communication costs and begets a compressed and common virtual space, in which people from all over the world can expeditiously exchange their opinions and conduct various business transactions. The accessibility of new media interaction has numerous opportunities for people to form a virtual community, a new cultural identity is then emerging and the old cultural identity is challenged.

Although it is not clear whether the time-space compression will lead to a universal culture or give rise to a global village, new media's accelerating and facilitating human interaction apparently affects the features of interactivity, constrastivity, and multiplicity of cultural diversity. New media also profoundly influences the most dominant form of culture identity, i.e., national identity, by contesting its roots and thinning its density. The impact of new media to other forms of cultural identity is as well inevitable.

The time-space compression speeds up the formation of new communities. The interaction among community members is no longer confined by face-to-face format, but instead a form of distant communication based on common interests and physical and geographical separation. The free movement of membership may reflect the lack of stability of a virtual community; however, when people acquire the membership of a virtual community, the community will begin to challenge their traditional lifestyle by fostering more freedom and qualities of being like an actor (Mlinar, 1992). Although no enough research findings to demonstrate whether the virtual community will directly influence or replace the cultural diversity woven in the real life (Baym, 1998), it can be certain that, based on the rapid development of new media in recent years, the impact of new media on cultural identity is bound to happen.

In addition, the compression of time and space also results in more opportunities for the construction, reconstruction, and negotiation of cultural identity. These opportunities come from that globalization challenges the unique geographical identity that is marked by its recognizability, identifiability, and continuity. When the new identity penetrates into the territory of geographical identity and provides a different interpretation of past history and future prospect of the community, it will also lead to the change of different identities.

Within the nation, the new identity will shake up the legitimate foundation of the nation. The strong demand of increasing the quantity and quality of occupational, co-cultural, and ethnic identities may eventually replace or obsolete the national identity. For example, globalization engenders many international corporations, in which employees are no longer from a group with a similar cultural identity, and the working location is not fixed within a country anymore. As Liu and Chen's (2002, 2006) studies illustrated, employees in international joint-ventured companies showed the dynamic nature of cultural differences and the possible changes of their perception and behavior within the organization. Tu (2006a) further pointed out that the rapid development of the economy instigated by globalization in East Asia has brought about tremendous transformations of cultural values, and similar changes have extended to different areas of the world. It is undeniable that the change of cultural values will impact the maintenance and reconstruction of cultural identity; hence, Tu urged that, in addition to investigating the change of cultural values in East Asia as a whole, it is necessary for scholars to compare the differences of cultural values among different individual nations, such as PR China, Japan, and Korea.

Lastly, another influence on cultural identity comes from regional alliances of different nations and non-governmental organizations (NGO). According to the statistics from the Union of International Associations (2006), in 2004 there were 7,350 alliances between nations and 51,509 non-governmental organizations. Those governmental alliances, such as APEC, ASEAN, EU, NAFTA, NATO, OPEC, WHO, and WTO, cover the economy, health, politics, military, and many other areas of human activities. The regional alliances are challenging the national boundary and political borderline. It may first cross over the geographical identity and transform occupational and ethnic identities into a new form, and then dismantle the stronghold of national identity.

NGO refers to non-profit organizations. In recent decades, environmental protection NGO such as Greenpeace International, formed in 1972, has induced a revolutionary social impact in developing countries. They not only are transnational, but also develop into regional and local organizations. The powerful influence of civic society, originated from the catenation effect of local, regional, and global connection, reflects the enormous influence of the convergence of new media and globalization. Whither is human society led by this on-going trend remains a critical question for scholars to answer.

CONCLUSION

The dynamic, pervasive, holistically interconnected, culturally hybrid, and individually more powerful nature of globalization instigated by new media has transformed human society into a new entity, which is very different from the traditional one. The compression of time and space, due to the convergence of new media and globalization, has shrunk the world into a much smaller interactive field. It provides more flexibility and free space for maintaining, negotiating, constructing, and reconstructing different forms of cultural identity. Because the redefinition of time and space is a complex process, the transmutation of cultural identity will be a highly dynamic process as well. How global citizens face the continuity and solve the possible cleavage caused by the fluid nature of cultural identity will represent both an opportunity and a challenge for the future development of human society. As Aboulmagd, et al. (2001) and Tu (2006b) indicated, the global society mirrors a holistic and integrated body of multiple cultural identities, in which every individual culture should equally participate in the dialogue based on their own cultural experience in order to establish a beautiful and productive future world.

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KEY TERMS AND DEFINITIONS

Convergency: The forms and functions of electronic computing, electronic communication, media, and information are combined via new media.

Cultural Identity: A sense of belonging, originated from the interaction and negotiation between the self and the affiliated group, to a community.

Digitality: The forms of information are encoded in a simple binary code of 0 and 1 in new media.

Globalization: A process by which the experience of everyday life around the world becomes increasingly integrated due to the compression of time and space.

Hypertextuality: The networking function of new media that allows a large quantity of information to freely move around within a series of interconnected nodes in the network.

Interactivity: The degree of choice and control when new media users utilize information resources and the system.

New Media: Also called digital media. Those technological forms combine communication networks, computing and information technology, and digitized media and information content.

Virtuality: The cyberspace felt by interactants during the communication in the network; or the virtual experience and reality developed through the interaction in cyberspace produced by simulation and image technologies.

Chapter 52
An Integrated Approach to Interactions in Cyberplaces: The Presentation of Self in Blogs

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ABSTRACT

Recently a change of perspective took place in online interaction research, shifting attention from technologies to what people actually do online. Therefore a new family of phenomena appeared: Psychology of Cyberspace was the first answer. Now the time has come to go further adopting an even more 'social' stance to study Cyberplaces giving birth to a Social Psychology of Cyberplaces. Combining three theoretical realms (objects, subjects, processes), three levels of analysis (local mediated interaction, everyday situation, social context) and two methodologies of data production (qualitative and quantitative), this chapter proposes an integrated approach to online interactions. An example of this is shown by discussing a research on Self Presentation in blogs.

INTRODUCTION

The aim of this chapter is to show an integrated approach to study complex objects and, in particular, social dynamics in Cyberspace and interactions mediated by New Technologies (NTs). The complexity of such research objects requires a conscious attempt to combine three theories (subject, object, processes), three levels of analysis (interaction, situation, context) and two methodologies (qualitative, quantitative) in a relevant way. This calls for a careful reflection about data producing processes, analysis and interpretation. The resulting approach

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could be applied to a wide range of situations and research objects by different professionals.

FROM PSYCHOLOGY OF CYBERSPACE TO SOCIAL PSYCHOLOGY OF CYBERPLACES

Recently the field of online studies has witnessed a rise in the number of research activities and publications, including one of the first comprehensive manuals on the subject (Suler & Barak, 2008). From an overall negative vision about life on the screen, typical of the first studies (Reid, 1992; Donath, 1998; Metitieri & Manera, 2000), researchers today underline how a healthy and significant integration between online and offline interactions is possible. These studies stress two elements of innovation. The first one is innovative conceptualizations to understand and explain human actions in Cyberspace; the second one consists of efforts to enhance traditional psychological applications in a new environment.

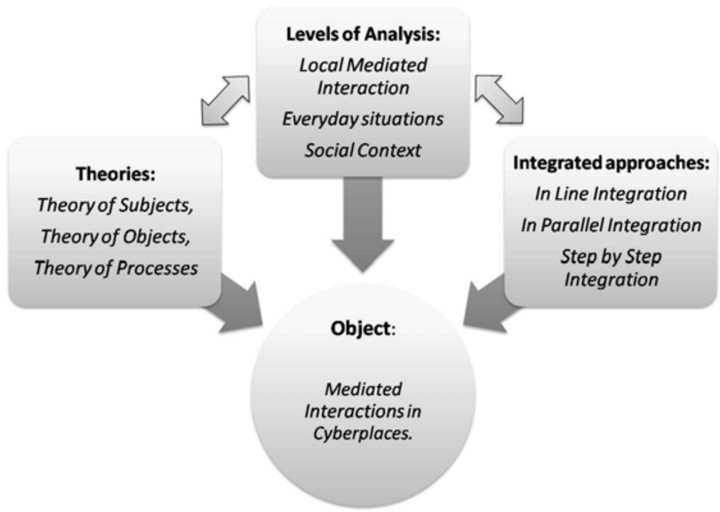
The Internet is a varied composition of small worlds, never fixed, characterized by specific tools, languages and practices. To study them it is necessary to frame an aspect of interest and approach it with a relevant method. Barak & Suler (2008) claim that first attempts to comprehend these worlds were made by applying models from Social Psychology or Communication Studies. Today the field has reached a good level of maturity and rightly deserves to have its own name, Cyberpsychology, or Psychology applied to the New Technologies field. If the focus of attention is social dynamics and mediated interactions, it is necessary to find a complementary field of Social Psychology, which may be called Social Psychology of Cyberplaces. This change comes from an epistemological need. As Agazzi (1976) said, research objects are the results of the application of a particular perspective on 'things' present in everyday life. This means that research objects will result from both a synthesis of a particular 'thing' experienced by social actors in everyday 'cyberlife' (chat, blog, communities, etc.) and a particular point of view (attention to actions, interactions, relationships, etc.). Therefore, by assuming a psychosocial perspective, research objects become different from the ones Barak & Suler (2008) hypothesized, because the points of view are different. Through psychosocial lens a peculiar and different side of users' mediated experience is outlined: the focus is on mediated interactions, instead of on the medium itself; online worlds are not cybernetic spaces characterized by technological features, but they are social places where social needs and social dynamics are performed. Cyberspace is set aside for a new object, *Cyberplace* (Waskul, 2003).The following paragraphs will present how this shift of perspective is implemented to define a *Social Psychology of Cyberplaces*.

OBJECTS: CYBERPLACES

Studying mediated interaction and online life means focusing on something that is becoming common for many people. New ways of being and behaving are born, because NTs are used to perform old tasks in new, creative ways, and at the same time these new tools give birth to new possibilities and alternative solutions (Waskul, 2003). All these behaviours are performed in specific online environments and are cultural elements belonging to digital worlds (Fornäs, 1998). According to this perspective, the focus is not on technology, but on people using it. As Waskul notes, cyberspace has been considered for a long time for its technological features, but now cyberplace is preponderant: social dynamics are the focal point.

With the click of a mouse, people can interact with diverse others in a multiplicity of socially produced places, providing a context for the experience of anonymous yet personally meaningful identities

Figure 1. General plan for the integrated approach to define research objects: three theories, three levels of analysis and three integration models



situated in a geographically spaceless context where commitments to any given self are as easily disposed of as they are accessed. (Waskul, 2003).

This shift of focus does not imply the abandonment of the concept of cyberspace, but underlines its pertinence to General Psychology, while cyberplaces seem to be the 'natural' field for a psychosocial investigation, legitimating the existence of a Social Psychology of Cyberplaces.

METHODOLOGY

Once the field of research is established, it is time, as Kuhn (1962) would say, to elaborate on the methodology. Efforts are directed to face and manage the complexity of the object of study, not just the technological innovations; Social Psychology of Cyberplaces tries to combine a psychosocial perspective and different techniques by adapting them to different objects every time. Methodological reflections start from a consideration on the specific point of view to choose and by considering three main theories and three levels of analysis.

THREE THEORIES

Starting from the classic approaches of social psychology which study subjects and their interactions in a context, it is clear that the first methodological tool we need is a psychosocial framework for social dynamics.

This frame consists of three psycho-social conceptual 'roots': a theory about Subjects, a theory about Objects and a theory about Processes respectively focused on actors, artefacts, and interactions. These theories are not mutually exclusive and have to be considered as different points of view on the psychosocial dimension of phenomena taking place in cyberplaces. Each theory is related to and integrated to/by the other theories.

ACTORS

The theory of Subjects is focused on *actors* involved in mediated interactions and it deals principally dealing with distributed cognition, mediated communication and identity presentation.

Psychosocial approaches to cognition are interested in understanding how cognitive processes interact to create links between actors' minds through a meta structure also connected to NTs that allows actors to combine several efforts at the same time and at different levels. The concept of *collective intelligence* (Levy, 1994) is a first attempt to consider this new form of collaboration. In addition to this, the idea of *interbrainframe* (Galimberti & Riva, 1997) rooted in De Kerckhove's concept of brainframe (De Kerckhove, 1991) conceiving cognitive activities as social activities, growing from a social network base thanks to distributed efforts, represents an example of Connective Intelligence (De Kerckhove, 2002).

The Dialogic/Conversational model is another paradigm focused on interactions between interlocutors and context to better understand communicative exchanges. A common code of communication is not a guarantee of reciprocal understanding; shared beliefs, expectations, rules and so on are also important to reach mutual understanding. Mediated interactions use common cultural meanings typical of mediated contexts, as in Face-To-Face situations, as local mechanisms through which interlocutors try to reach reciprocal understanding. A stream of research developed to explore how people present themselves in term of goals, strategies and tools, and to understand what interlocutors see. Identity undergoes an intriguing change in a symbolic virtual context because the body is absent and so are all the identity cues connected to it. There are two main theoretical perspectives, and both consider the possibility of using mediated communication to present an identity thanks to social cues. These first theorizations reveal negative consequences for identity (Identity Workshop), and stress the possibility to express something new online thanks to anonymity and the absence of body. The second theoretical orientation, Identity Fragmentation (Donath, 1998), focuses on the change of images the Internet allows the individuals to create according to the virtual environment they are in. Users can present a limited version of their identity to access a virtual community. All these images are not combined and included into the Self, which becomes decentred in time and deconstructed by online experiences.

ARTEFACTS

Theory of objects considers technologies as artefacts with which a group can develop cultural meanings and shared practices. According to Mantovani (2004), each artefact is ideal and material at the same time and has a physical structure that gives shape to a mental project. It arises from a context, changes it, creates new possible uses; relationships with the environment are 'cultural' when mediated by an artefact (Cole, 2004). Thus interactions are always culturally characterized as they include values, scopes and emotions (Mantovani, 2007). Mediated interactions can be studied using a cultural perspective; NTs are real material artefacts which with time induce specific behaviours among users. Indeed, interactions are directed to someone beyond the screen and have a social aim.

In more concrete terms, this means that, in order to sustain the operations that take place within our minds - operations that represent the process of planning the actions that we then carry out - we inevitably need some awareness of the environment within which those operations take place. (Galimberti & Riva, 2001)

Cole (2004) describes the link between subject-action-intention and artefact: these elements and their connections are part of social exchanges. Subject and object are linked through a mediating artefact, but such relationship needs all the social references permeating online and offline social groups to exist. Bernstein (1971) stated that produced objects are not something external to those who produce them, because they are the objectification of their creators' action. Suchman (2007) also underlines the role of interfaces and

NTs in general: "their meaning is given to them by the social world at the moment in which they act as mediators of the way we interact with it".

PROCESSES

The last theory focuses on Inter-actions; it is a combination of the first two points of view, because it describes all the dynamics subjects and objects are involved into.

'Situated action theory' (SAT) states that people constantly consider and adapt plans, social actions, contextual elements to intentions and real conditions. We can consider social dynamics as a sort of intersubjective cognitive practice. Daily actions are characterized by improvisation; subjects modify easily tools, strategies and plans ('intention-aim-plan') in order to reach their main goals which remains stable. (Mantovani, 1995). Adaptation is a key element for social life and it is never ending, because contexts, artefacts and interlocutors change constantly thanks to their reciprocal feedbacks, producing new scenarios and opportunities.

Positioning Theory instead focuses on users' presentation of identity in mediated interactions. Identity is not considered as a fixed monolith with an on/off modality, but as a complex, multifaceted construction. Such complexity cannot always be sustained in any situations: people assume different parts of their identity according to their aims, tools, context and social situation (Harrè & Van Lagenhove, 1991). Talamo & Ligorio (2001) emphasize that this also happens in mediated interactions: identities are useful resources to reach a social goal, no matter how far 'online presentations' are from identity.

The last approach is based on the concepts of *Subjectivity* and *Intersubjectivity* (Galimberti & Cilento Ibarra, 2007). Subjectivity is a fluid and circumscribed image proposed outside, a portion of what the person is, based on the Self. It is an intention based on part of the Self relevant in that context, and its aim is to be understood by interlocutors, so it changes and adapts according to the course of interactions and the tools offered by the context. Two or more subjectivities are linked together since each one needs to be understood by the other and it continuously changes thanks to the feedbacks of the other. The next step is to say that intersubjectivity is produced by interaction and by a connectivistic dialogue created and managed by a unique combination of subjectivities interacting in a given context, at a given moment. Rooted as it is in the subjectivities that generate it, Intersubjectivity is the 'phenomenological' bridge between the Self and the Other.

THREE LEVELS OF ANALYSIS

A first approach to study mediated interactions as complex objects was the Complementary Explorative Multilevel Data Analysis (CEMDA; Riva & Galimberti, 2001). This model has three different *foci* that consider mediated interactions as placed in a social life and not in a vacuum:

1. Local mediated interaction
2. Everyday life situation
3. Social context.

At the level of local mediated interaction the attention is focused on the relational process taking place via artefacts - computers, mediated environments or groups etc. - where the interaction is located. At this level it is possible to observe social dynamics, reciprocal goals negotiations, affordances and behaviours among interlocutors and between interlocutor and artefact. The second focus is on the situation where the mediated interaction is located, in its everyday components (e.g. roles, micro-group processes, norms, etc.). The last focal point is the social *context* and how it shapes the interactions.

These three levels are not mutually exclusive, but a modulation of attention is needed when defining the research object, in order to develop a clear research question and to choose the most pertinent level to settle the study at. Our aim is to frame an object to be studied on different levels and theories, so as to describe the object's complexity.

DATA PRODUCTION AND DATA ANALYSIS

It is now clear that Social Psychology of Cyberplaces studies very complex objects, so it requires a match between theories and levels of analysis together with an appropriate method of data production and analysis.

This aim can be reached by choosing appropriate methodologies and techniques to produce and analyze data, and by combining them to gather different information. Quantitative and qualitative methodologies have to be considered.

A good understanding of strengths and weaknesses of both methodologies (see Figure 2 for a summary) and the debates about them (Madill & Gough, 2008; Gelo, Braakmann & Benekta, 2008) is assumed here. Now the focus is on how they can be combined.

Qualitative and quantitative methodologies differ in many areas, like aims, data gathering and results generalizability; so, the first and simplest way is to choose just one of them. A more complex decision means combining different techniques in a harmonic, integrated approach following one of these three possible ways:

- In line integration
- In parallel integration
- Step by step integration

IN LINE INTEGRATION

'In line integration' consists in using qualitative and quantitative methods in temporal succession. The first method works as a pre-study which specifies conditions or gives indications for a second study, through which investigate the main aim. Integration is based on the combination of two different methods. For instance:

- Gather data about a great sample and use results as a guide for a more in depth analysis of prototypical cases or principal characteristics;
- A naturalistic observation as the starting point to elaborate hypothesis which can be verified in a wider sample;
- Results of a first preliminary investigation can be applied in a wider or more specific sample in order to investigate the effects of the intervention.

IN PARALLEL INTEGRATION

'In parallel integration' consists in using both methods simultaneously, in order to have two perspectives at the same time, reducing the possible effects of changing samples and temporal influences. This integration offers parallel paths to a unique object. For example:

- Analyzing the same data using two different methods: for instance, mediated textual conversations can be studied in terms of linguistic feature (number of occurrences, correlations and so on) and of conversational dynamics;
- Producing different kind of data during a single investigation (i.e. an observation in a naturalistic context or in a experimental setting). For example, it is possible to combine results of behavioural analysis conducted through an observational grid with answers gathered by means of questionnaires or inventories.

Figure 2. Summary of qualitative and quantitative methodologies

	Qualitive methodology	Quantitative methodology
Inductive/Deductive process	Inductive process focused on the possibility to discover new theoretical implications.	Deductive process focused on the hypothesis falsification.
Constructs	Are just guides to help the observation.	Are fixed and transposed in something measurable.
Approach	Observational approach: participants behave in a natural way in an ecological environment.	Experimental Approach: behaviours are limited to the studied variables.
Interaction researcher-participants	Researcher's empathy is a key way to comprehend phenomena.	Researcher do not have to interact.
Research Design	It changes during the observation in order to fit new elements.	Fixed and structured before the experiment starts.
Sample	Phenomenon - representative samples. Focus also on single cases.	Representative and wide samples.
Data gathering	Focus on overall pehnomen.	Focus on just one aspect of the phenomenon.
Data presentation	Images or quotation s which represent the real and specific object.	Tables, charts and statistical indexes.
Generalizability	Limited results' generalizability to specific cases.	Results' generalizability to all population considered.

STEP BY STEP INTEGRATION

The 'step by step integration' consists of a more complex path of research; methods are combined and chose in time, using one of the two previous main strategies, considering the results *in itinere*. We propose two possible paths:

- Starting from an extended corpus of data it is possible to select, thanks to statistical evidence, a smaller and more representative sample. Specific and meaningful categories can be obtained using a qualitative analysis (e.g. conversational analysis) in order to use them and, as a last step, considering the whole corpus to refine the results.
- Choosing a smaller sample from a corpus of data for a deep qualitative analysis; then use the obtained categories for a wider quantitative analysis on the corpus (for example, content analysis). Thanks to this step it is possible to refine the meaning of these categories on the whole population considered in order to specifying how to use it in a better way, returning to consider single cases.

By means of this first part of our work, we showed the consequences on scientific research of the change of perspective that affected the exploration of online interaction in these last few years. Focusing attention on what people actually do online using artefacts based on those technologies, a new family of phenomena appeared. We tried to motivate why a Social Psychology of Cyberplaces is needed and presented the possibility to give birth to an integrated approach to online interactions by combining three theories, three levels of analysis and two methodologies of data production and analysis. Now it is time to show how all this can work: this is what we intend to do by discussing a study on Self Presentation in blogs, following its making, from literature review to conclusions.

A CASE: SELF PRESENTATION IN BLOGS

In this last part of the chapter, an application of the method explained in the previous paragraphs will be presented. An example relative to a research about Self Presentation in mediated environment will help with this objective. Here blogs are studied as cyberplaces where people enact Self Presentations: focus is not on technologies but on the practices people use to present their Self. This attention to the theme of identity, subjectivity and Self is coherent with the paradigm shift from Psychology of Cyberspace to Social Psychology of Cyberplaces: indeed, research on blogs progressed from considering this object as tool *per se* (Herring, Scheidt, Bonus, & Wright, 2004; Nardi, Schiano, & Gumbrecht, 2004), with its feature impacting on the produced literary content (blog as literary genre) to conceptualize blogs as a medium which allows people to exceed the limit set by the physical body: a blog is defined by its supported practices (blogging) and by the identification people have with these practices (boyd, 2006).

The word 'weblog' was created in 1997 (Blood, 2000), since then blogs have become a popular phenomenon. This new application of Web 2.0 has peculiarities that allow people with no knowledge of the html language (needed previously to build a web page) to be present and active online.

Blogs are frequently updated web pages, with posts listed in reverse chronological order (Herring, Scheidt, Bonus, & Wright, 2004). Paradigm shift to a Social Psychology of Cyberplaces moved attention from technical features of blogs to blogging as a social activity. Readers participate as much as the blogger to the development of the blog itself (Nardi, Schiano, & Gumbrecht, 2004). Blogs thus become a stage for social practices, where the bloggers and readers can express themselves (boyd, 2006). Bloggers can act socially and their blog becomes an extension of their Self, through which they reach out to the other (Reed, 2005). The blogger's identity and history are introduced to the audience coherently and constantly.

Presence of the others is central: bloggers consider their readers' attention, feedbacks and feelings (Nardi, Schiano, & Gumbrecht, 2004). Blogging is a *conversational activity*, a continuous exchange between bloggers and readers, who actually are part of the blogger's narration (boyd, 2006). Texts are artefacts (Cole, 1996) that help communicating the blogger's Self, which is built through the reader's feedback. Readers' feedbacks and comments confirm (or disconfirm) the bloggers' self-presentation acted via text (Miller & Shepherd, 2004). This firmly places Self Presentation via blog and blogging in the *theory of processes*. Blogs are definite expression of the bloggers' subjectivity, as enacted though a Self Presentation (Galimberti & Cilento Ibarra, 2007) negotiated and discussed with readers (boyd, 2006; Reed, 2005).

Obviously attention has been mainly focused on the content displayed in posts. Blogs are not made just of posts, but have many other components that are integral part of the layout and therefore are part of the overall aim the blogger has.

The importance of design and structural elements has already been noted in web pages. Personal web pages are often considered antecedent to blogs (Herring et al., 2004; Miller & Shepherd, 2004). Chandler (1998) considers personal home pages as practice of 'construction of identity' through 'building blocks' made of the web page elements. These elements are textual, (e.g. personal statistics or biographical details, interests, likes and dislikes, etc.) but also include all the elements the author deemed significant enough to include in his/her web page. There is a division between page *content* (mainly meaning text) and page *form* (e.g. themes, formulaic structures, technical features, iconography and modes of address). The personal web page *form* gives intentional and unintentional disclosures about the author, and at the end of the day is an answer to the question “who am I?”.

Similar categories were identified by Hevern & Annese (2005). These authors identified an ‘iconographic strategy’ (e.g. colours, background images, other technical features, etc.) that is mainly aimed to create an idea of the blogger’s identity both in the author, thanks to a process of clarification through writing, and the audience. Peculiar identity related sense-making processes are linked to specific items through this strategy.

Blogs are easier to build and maintain than web pages and are easily recognizable: a more dynamic part, updated frequently, is dedicated to posts and is framed by the blog design, which can be modified and customized, but not as frequently as the post. The first part will be called ‘main channel’ and the second ‘secondary channel’.

This short review makes evident that research regarding structural and design elements of blogs is lacking: different authors find similar categories; occasionally items in a category overlap items in another one; often there is not a clear line between the elements present in the main channel and the ones in the structure. Literature shows no presence of studies regarding the link between blog design and structure, self presentation and how readers may influence the choices in Self Presentation regarding such components.

Therefore, the present research has the following research questions:

Q_1: What are the structure and design components relative only to Self Presentation in blogs?

Q_2: What are the communicative intention behind the structural and design choices that make up the blogger’s Self Presentation? Does the bloggers’ social network and related cyberplaces influence these choices? Do other users leave feedbacks on blog design? Which effects do they have on the blogger’s self?

Research Rationale

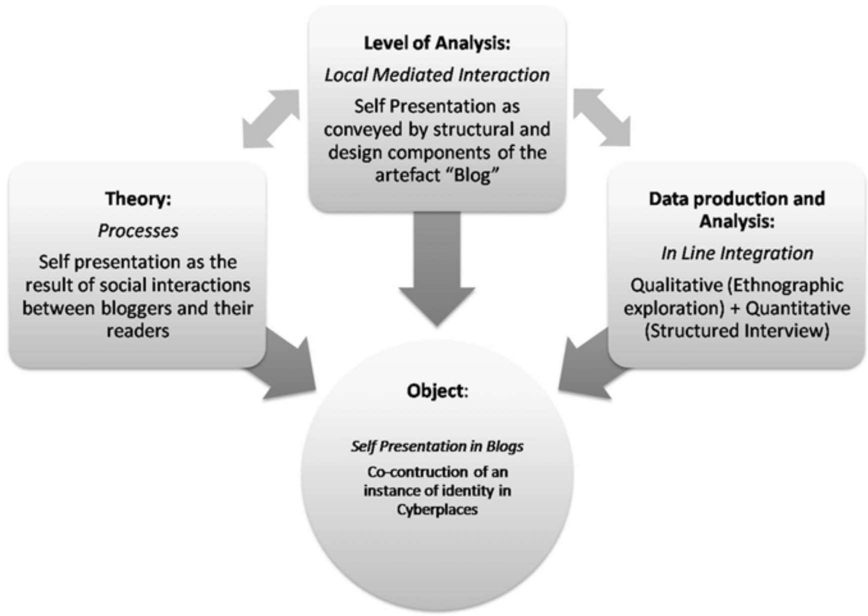
Once the research questions are set, we need a methodology to find an answer to these questions. The rationale for the research is shown in Figure 3.

To answer both questions it is necessary to use an *integrated approach*: before solving the second and most fundamental question about Self Presentation, it is necessary to investigate which parts of the blog structure and design convey elements linked to Self Presentation within the boundaries of the medium. It is therefore necessary to explore such limits and which parts of the blog structure and design bloggers use to do this. Once these structure and design elements are identified, it will be possible to start investigating the influence the blogger’s readers have on the communicative choices made through these elements.

Research Question 1

Finding out which structural and design elements bloggers use to present their Self implies a selection of one of the blogging services on the web. This is a necessary step as every blog hosting service offers different opportunities to its user. LiveJournal (LJ), a blog hosting service, was selected because of its popularity (more than 11 million active users), and the possibilities offered to the users to customize their blog template. LiveJournal hosts many blog communities dedicated to blog design where users can ask expert users to create layouts and designs to their own specific liking. Finally LiveJournal was chosen over other services because it is characterized by a strong sense of community. It is rare not receiving a comment for a post. This last consideration is important especially considering the second

Figure 3. Rationale for the study: theory of processes, local mediated interaction and in line integration



research question, which implies that bloggers have strong and lasting communicative exchanges with their readers.

PROCEDURES

A document analysis (Silverman, 2001) was performed on the LJ website (www.livejournal.com). Focus of attention were the written instructions provided to the users for customizing their blogs. These instructions can be considered as 'records' (Lincoln, & Guba, 1985), as in formal written accounts and documents prepared by an organization.

Data generated were triangulated (Morse, & Richards, 2002) with data made by observation of blogs, so that discrepancies in both corpora were be pointed out and other data enhanced (Love, 2003).

For the ethnographical observation, a first blog was retrieved through the 'random journal' command available on LJ. Starting from this blog friend-list (a particular kind of *blogroll* specific to LJ), one blog every 10 was extracted till complete category saturation (Morse, & Richards, 2002). A total of 40 blogs was extracted.

RESULTS

All categories found in the analysis are in Figure 4.

Several categories match the ones found in literature, while others, such as privacy settings, are grounded and peculiar to the LiveJournal environment. Categories such as name, title and subtitle were not considered to be part of the structural channel of the blog in previous research but here they were considered to be, because they are placed in a central and prominent position in blog design. Categories are not mutually exclusive: users use the same components to convey different messages, for instance, the message to convey privacy setting on the front page of the blogs is often embedded in a picture that at the same time is a reference to interests of the bloggers. Often the denomination of links is a reminder of interests, personal opinions about relationships or blogging itself (e.g. a link to the friend list named 'family' depicting a close relationship between the blogger and the community). Overall, all the choices are 'overrides' of the standard settings offered by LiveJournal: bloggers exploit the possibility to change such settings according to their abilities and interests in customizing their blog. This multiple use of the same elements to communicate aspects of self point out that Self presentation are constructed by interweaving different elements to convey multiple information about the blogger. Once salient Self Presentation related categories are found, it is possible to proceed to the second step of this in line integration data production as asked for by the second research question.

Research Question 2

As is known, blogs are not individual spaces, they are shared and built with the blogger's readers (Nardi, Schiano, & Gumbrecht, 2004). If blogging, as in the practice of writing posts and answering to comments left by the readers, is a conversational activity (boyd, 2006), structure and design of web pages and blogs convey aspects of identity (Chandler, 1998, Hevern & Pugliese, 2005, Hevern, & Annese,2005) and self presentation is a conjoint effort between the person, other people who are in interaction with the actor and the context they are in (Galimberti, & Cilento Ibarra, 2007), it is reasonable to think that readers have some kind of influence in the Self Presentation of bloggers'. The aim of this second study is to explore what intentions are behind the communication (communicative intentions; Levinson, 1985) of Self Presentation, if readers have an influence on the structural and design choices the bloggers enact and if so, which kind of effect it has on the bloggers' self presentation.

PROCEDURES

A questionnaire survey was developed based on the categories found in the first study. The questionnaire survey was automated and uploaded to a website. Questions focused on communicative intention behind the choices of elements discovered in Study 1, influences of others and their effects on the blogger. Participants' answers were automatically entered in a database and entered in SPSS for analysis.

A link to the questionnaire survey was posted on two communities centered on psychology hosted on LiveJournal and on a blog of a facilitator's. A facilitator is a person that can help the researcher to access the community object of study (Silverman, 2001). Community members and readers were asked to take the survey as privileged witness of the object of study. The sample was therefore self-selected. The structured interview was available to participants for ten days from the day the link was posted on the blogs.

RESULT

Eighty-two bloggers answered the questionnaire survey. Sixty-three participants clicked on the link posted on the facilitator's blog, the rest arrived at the survey via the psychology communities. 97,6% (n=80) of the sample was female. 50% are aged between 17 and 25; 20,5% between 26 and 30; 15,8% between 31 and 40; 7,3% between 42 and 55. Half of the sample (50%) is North American (USA and Canada), 40% European. The rest of the sample is from Asia, Middle East and Australia. As far Education level, the sample is divided as following: 32,9% (n=27) had a high school diploma, 42,7% (n=35) has an undergraduate university degree, 19,5% (n=16) has a

Figure 4.Category names and descriptions for design and structural elements

Category	Description
Privacy settings	LiveJournal allows its users to decide if they want their journal to be read by the public at large or only by "friends", making it "friends-only". The only way to establish if a blog is public or friends-only is through an announcement made in a "sticky post" (fixed in the first page under the title banner), which makes it part of the structure. A blog is considered friends-only if the blogger announces it so, even though there may be some posts visible to all.
Title	Name given to the blog by the blogger. If present, it always appear on the browser's BARRA and in the profile page. It appears in the layout only if the design allows it. It can be the blogger's username or something completely different.
Subtitle	If present, it appears usually under the title in the main page and in the profile page. Graphically, it has a small font size and it's in a hierarchically inferior position to the title. It may be a repetition of the title itself or something different.
Name	Name the blogger calls him/herself with. It may be the blogger's username, real name, or another nickname, different from the username.
Other nicks	Other alias the blogger uses.
Memories	A link in the layout that connect to posts the blogger archived because deemed interesting or worth remembering.
Calendar	A calendar or a link to one, in which appear the number of post made every day and a link to them.
Personal information	Personal information revealed by the blogger, such as: birthday, age, location, schools. This information may be present in the front page of the blog, usually in a side bar.
Links to other blogs	Classic blog-roll, with links to other people's blog that the blogger reads. It usually is in a sidebar on the front page of the blog.
Link to personal pages	Links to other web pages, blogs and profiles created by the blogger
Interest list	List of blogger's likes and dislikes, interests, preferences. Usually in a sidebar on the main page of the blog.
FAQ	Information, rules and other instruction the blogger gives to the reader. It may be present in the main page in the sticky-post or in a sidebar.
External links	List of links to websites the blogger likes
Quotation	Quotations from books, movies, TV-shows, etc. present in the sidebar.
Search engine	Search engine box embedded in the user-info page or in the layout of the main page.
Template	Layout used to customize the blog's "look and feel". It is considered customized if the blogger made changes on the name of the links internal to the blog, put a header or a background image, otherwise it's considered standard.
Link denomination	Personalization of the name given to the structural link, such as the link to the "friends' page, archive, user-info page.
Background image	Image that appears under the posts and the layout, on the background.
Header	Image or banner that appears above the posts' main channel.
Advertising	Presence or absence of advertising on the blog. Presence of advertising signals that the blogger's chose a sponsored account on LiveJournal.
Blog Icon	It's a default icon which it is always present on the user-page, if the blogger chose to have it. It appears on the front page of the blog only if the layout is designed to have it.
Buttons	Classic button links to external websites.
Images	Images of different kinds included in the layout. The header and the friends-only banner are not included.
Counters	visit counters and tickers.
Asynchronous contacts	Email addresses listed on the main page.
Synchronous contacts	List of instant messaging contacts present on the main page (LiveJournal-jabber IM address not included).

master degree or more. Bloggers mainly decide to personalize in some way their blog layout and design (n=56, 68.3%).

Figure 5 shows communicative intentions behind the choice of username; motivations behind the choices of customizing the blog design; communicative intentions for Link denomination, background image, header, pictures and title; and feedback effects on the blogger.

Five people (8.9%) chose the option 'other' and elaborated on their motivation for customizing their blogs. From these answers it appears that sometime bloggers with the LJ community are 'gifted' by their friends with a personal and completely original design and layout. A striking answer is the following:

My friends thought I was boring and did it [the blog design] for me (Female, 39, USA)

This answer is particularly interesting because it implies that friends may have a direct voice into the blogger's Self Presentation, going so far as building it themselves and the blogger trusting them to do so, but also because the first part of the sentence points out that the blogger feel a substantial continuity with her blog.

The second area of the survey regarded the influences others had on the choices about self presentation through these design elements. Direct questions about feedbacks left by the others about each components revealed that bloggers in general received few and generally positive feedbacks. Only an overall change in layout draws direct feedback from readers (51.2%, n=42). Frequencies for feedback effects are in presented in Figure 5.

Participants were divided into groups in function of age (21 year old and younger, aged between 22 and 30, 31 year old and older), origin (Ameri-

Figure 5.Percentages for communicative intentions behind username choice; motivations underlying customization of blog design; communicative intentions for five components of blog design; feedback effects

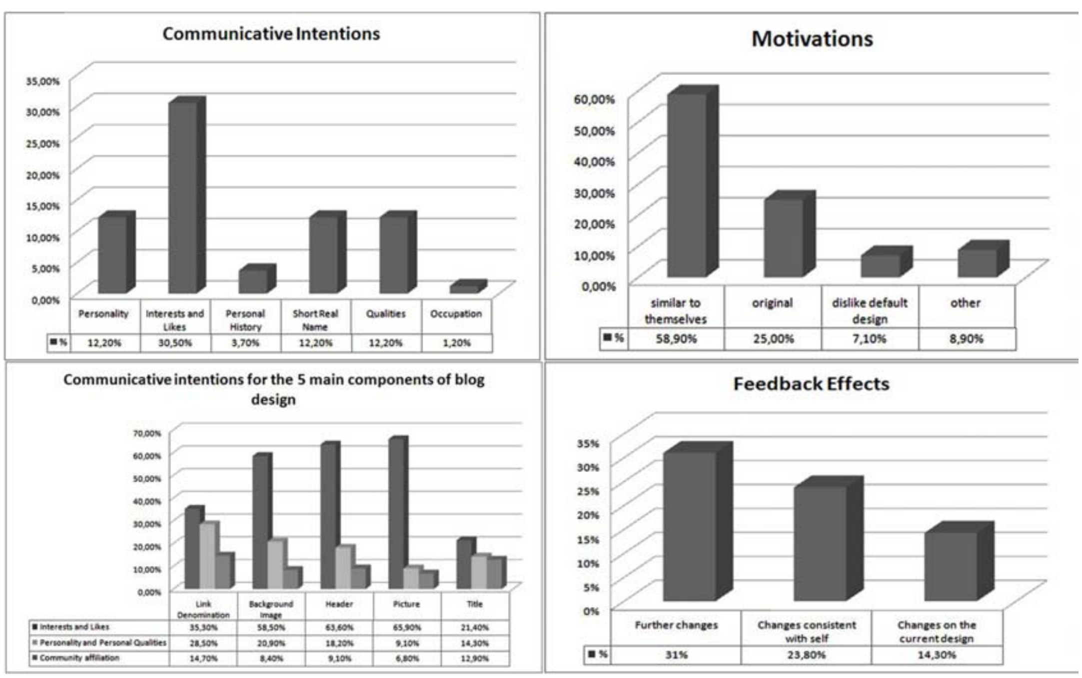


Figure 6. T-test results for education level

'high school diploma' vs 'graduate'			
Category	**T**	**Df**	**Sig.**
Username	2.206	43	.033
Contact Information	3.36.	43	.002
Privacy Settings	2.224	42	.043
Pictures	2.132	42	.039
'undergraduate' vs 'graduate'			
Category	**T**	**Df**	**Sig.**
Username	3.669	50	.001
Contact Information	2.667	50	.011
Privacy Settings	2.615	46	.014
Quote	1.996	47	.053

can, Non-American) and education level (high school diploma, undergraduate degree, graduate degree). T-tests were performed to gather differences between groups Significant differences are present for groups of age and education levels for several components.

T-test results for groups based on Education Level and age group are respectively in Figure 6 and 7.

Differences are due to higher presences of blog structural and design categories within the groups with lower Education and aged younger present in the T-test, except for the category 'quote'. Means for groups and categories are shown in Figure 8.

Results suggest that level of education is not completely separable from the Age variable, and this may be reflected in the results. This consideration will have to be tested in future studies.

DISCUSSION

The first study aimed to explore which design and structural components blogger use to make their blog more personal and enact specific Self Presentation. Bloggers have multiple possibilities to customize their blogs but it seems that they rarely use them all, at the same time they try to convey their Self using at least some of these elements. Several components appear to be relatively more important than others, such as general layout (header, links and background), and the username. These features are the most prominent elements in the blog design and structure to present the self. The username is the first element of recognition (Hermans & Ligorio, 2005) and it is how the blogger is identified by other bloggers and also becomes part of the URL of the blog, inviting even more identification between the bloggers and their blog. Header, links and background are

Figure 7. T-tests for age group

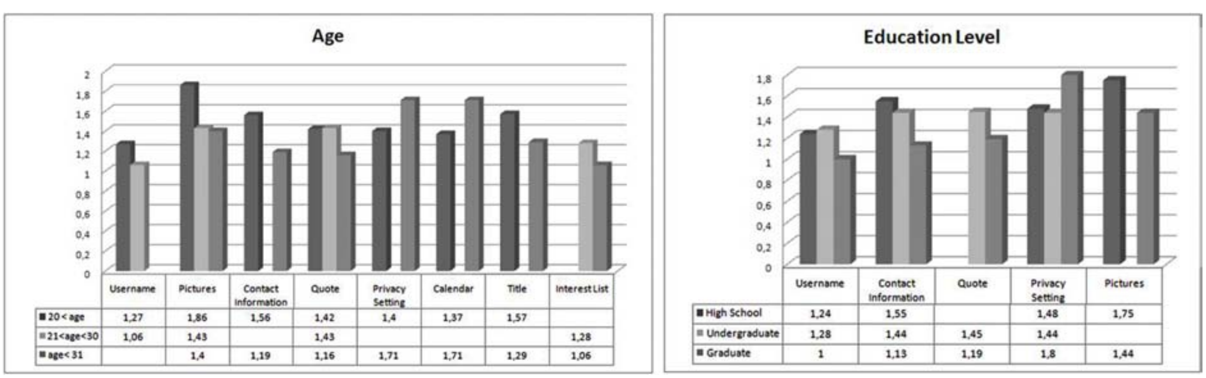
‘age< 20’ vs ‘21<age<30’			
Category	T	df	Sig.
Username	2.197	60	.033
Pictures	3.717	56	.000
‘age<20’ vs ‘age>31’			
Category	T	df	Sig.
Pictures	3.489	46	.001
Contact Information	2.686	49	.010
Quote	2.025	43	.049
Privacy settings	2.282	49	.027
Calendar	2.550	49	.014
Title	2.056	49	.046
‘21<age<30’ vs ‘age>31’			
Category	T	df	Sig.
Quote	2.188	47	.046
Interest List	2.109	44	.041

the most prominent layout elements. The header is very much the first thing one sees when opening a blog, followed closely by the background theme or image and the denomination of the link, often embedded or strictly connected to the header.

The last study allowed us to have a more punctual view about the choices bloggers make about their Self Presentations. Each structural and design element shapes specific Self Presentations which are guided by precise communicative intentions. It is evident by the pattern of answers that Self Presentations on LJ cater to a community of interests for the blogger, who provides clues to readers about this common interest through design and structural elements of the blog. Modulation of use of structural elements conveys very personalized Self presentation. Choices are based on the idea that there are others the blogger wants to connect with and the blog is built with such readership and community in mind. As such, ‘others’ do not influence directly the bloggers’ Self Presentation. Others appear as active contributors to Self Presentation: as direct makers of the blog design on request of the blogger, as gift bearers for the bloggers, or also as ‘coercers’ who compel the blogger to have a more representative design. Bloggers also report that others’ comments and feedback have a confirmative effect on their choices and that such opinions also make them confident in adjusting and changing their Self Presentation, hinting that a supportive relational environment may support people to test out different Self Presentations rarely enacted through different components.

Comparisons between groups revealed few differences and only three categories appear more than two times: username, pictures and privacy settings. Changing username is more common in

Figure 8. Means for age and education level groups



the participants aged less than 20 and with high school level education. As username is the first element of identity and how one is recognized and identified by others, it is possible that younger blogger first experiment with names, trying to find a nickname that fits them and that can be easily recognized by other members of the LJ community and readers. It would be a bad communicative strategy for older bloggers to change name, once they are known in a specific way as a blogger and member of a community. If one wants to sever links to a relational context and to change self presentation, changing username would be a good way to make a clean break and start anew. A future line of research should explore if younger users have been blogging for a shorter time than older bloggers, thus verifying that duration of blogging influences changes in usernames, even though previous studies underlines that nicknames remains relatively stable in time (Danet, 2001; Bechar-Israeli, 1995). Younger blogger also use pictures more than older bloggers. Pictures convey immediately interests and focus of the blogger. It may be possible that relatively unknown bloggers and members of the community want to communicate such affiliation to draw the readers' attention and make evident links between them and the 'others'. This intention do not hold up for more established bloggers, already positioned within a relational context. This last hypothesis could explain also different privacy settings for oldest and youngest groups: the youngest has public blogs, while the oldest has 'private' blogs. Youngest bloggers still need to build their social network and they still have to create their own social context and to do so they need to leave themselves (their blog) open to others' attention, while oldest bloggers have no need to do so.

To conclude, there are a few points to address. The sample is self-selected and mainly from a specific section of LJ, linked to a facilitator. This reflects on the sample, which is limited in number and is very homogeneous. It would be interesting to explore if these results could be replicated on an extended sample coming from different sections of LJ. Answers showed that rarely bloggers receive direct feedback on specific components but hinted that they have exchanges with others on blog structure. It would be useful to the study of identity and Self Presentation to find out where these exchanges are carried out, if within specific communities, private exchanges in comments, chats or emails, and if they involve particular 'others'. Self presentations are strategic and as such they change over time: from comparison between groups, it is clear that experience and time as a blogger modify how they present their self. It would be interesting to study self presentation in a longitudinal way, in order to track changes, adjustments but also invariant elements in Self Presentation. Categories used in this research are strongly grounded in the artefact that support interaction: another line of research would be to try to test out these categories on different blog hosting services to find if they worked or are affordances typical of LJ and consequently see how bloggers enact their self presentations on those services.

CONCLUSION

This chapter presented an integrated approach to study objects in Cyberspace and more specifically mediated interaction. The need for a structured but flexible research approach was born out of the complexity of these objects. Three theories, three levels of analysis and two methodologies are presented here to help researchers to individuate, define and study in a coherent manner their objects. These three foci of attention invite a conscious and constant process of reflection on the steps of the research, from data producing processes, to analysis and interpretation. The last part of the chapter was an example of such approach. First, once the research question is set, a theory was selected and the object of research was read within such framework: Self Presentation is co-constructed by the person and their interlocutors within a social context. Next, we identified a level of analysis; in this case it was local mediated interaction. Self Presentation is a process acted in a social context within the boundaries of a specific artefact, a blog hosted on LiveJournal. It was not possible to widen the scope of the investigation to all the blog hosting services, because it is necessary to select one field of attention that has its own peculiarities which influences processes that happen within it. Finally both methodologies were selected and applied in a particular order to answer the research question. A qualitative ethnographic analysis was used to explore components of blog design and structure on LJ and a structured interview to investigate the role of others and communicative intentions in Self Presentation via blog design.

It will be easier to keep track of the research choices and processes in framing an object by following the steps of the research proposed in this chapter. It will be also clear that particular attention is needed when studying communication and social interaction in a field that is slowly shifting from Psychology of Cyberspace to Social Psychology of Cyberplaces. This approach will hopefully provide professionals from different fields a helpful guide to study online interactions without having to renounce their complexity.

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KEY TERMS AND DEFINITIONS

Cyberplaces: Cyberplaces are the objects of research of Social Psychology when applied to virtual environments. Cyberplaces are environments where social dynamics and interactions outweight technological features of the artefacts used to create them. Cyberplaces are thus made of meanings co-produced by users. Social Psychology of Cyberplaces can be considered a theoretical approach to online interactions and virtual environments' experiences complementary to Psychology of Cyberspace.

Everyday Situation: One of the three levels of analysis to frame an object of research with. It focuses on the here and now situation where mediated interactions take place.

Integrated Approach: Variable combination of qualitative and quantitative methodologies in different succession in order to produce and analyze data to frame and study a phenomenon. Three integrations are possible: in line (subsequent), in parallel, step-by-step (circular).

Local Mediated Interaction: One of the three levels of analysis to study mediated interaction within. The focus is on the actor-actor, actor-artefact, actor-artefact-actor dynamics as realized within mediated environments.

Social Context: One of the three levels of analysis to frame a research object with. Focal points are here the different dimensions of social context (interactional, relational, group related and organizational) and how these dimensions affects actors' practice of use of artefacts.

Theory of Objects: One of the three roots used to frame social dynamics with, Theory of Objects focuses on Artefacts. According to this theory, Objects are both technological artefacts, but also endowed with cultural and social meanings build and managed by Actors.

Theory of Processes: One of the three roots used to frame social dynamics with, Theory of Processes focuses on interactions between Subjects themselves and Subjects and Artefacts. Examples of Theory of Processes are Positioning Theory, Subjectivity and Intersubjectivity.

Theory of Subjects: One of the three roots used to frame social dynamics with, Theory of Subjects focuses on Actors involved in mediated interactions and the links between them. Examples of conceptualizations within this frame are Collective Intelligence, Interbrainframe, Connective Intelligence.

Chapter 53
Relational Work in Synchronous Text-Based CMC of Virtual Teams

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ABSTRACT

Based on close examinations of instant message (IM) interactions, this chapter argues that an interactional sociolinguistic approach to computer-mediated language use could provide explanations for phenomena that previously could not be accounted for in computer-mediated discourse analysis (CMDA). Drawing on the theoretical framework of relational work (Locher, 2006), the analysis focuses on non-task oriented talk and its function in forming and establishing communication norms in the team, as well as micro-level phenomena, such as hesitation, backchannel signals and emoticons. The conclusions of this preliminary research suggest that the linguistic strategies used for substituting audio-visual signals are strategically used in discursive functions and have an important role in relational work.

INTRODUCTION

Virtual teams enable participants from geographically distant locations to work together. The increasing popularity of this type of work lies in the fact that the widely available and cost effective new communication technologies enable continuous and intense communication, and provide tools for speedy and efficient cooperation (for example, knowledge repositories, searchable forums, many-to-many communication, and so forth).

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This chapter focuses on text-based CMC, specifically on synchronous instant messaging (IM). IM is widely used for virtual work because it allows for prompt, as well as simultaneous, multiple interactions. Moreover, compared to other audio modes, environmental interference is not considerable. IM is a communicative mode that is fundamentally different from those previously known (Crystal, 2004), as it combines the features of written and spoken discourse (see, for example, Herring, 1999; Zitzen & Stein, 2004). Thus it is essential that the team members adapt to this communicative mode and use it effectively to achieve mutual understanding and consequently efficient cooperation. Failure to do so might result in the miscommunication of content or even in interpersonal misunderstanding; both of which are unacceptable in a work environment. Therefore, an exploration of naturally occurring IM interactions will shed light on how, at a basic level, computer-mediated communication happens, and will identify the factors that affect its success.

Working in a virtual environment and communicating via computer-mediated channels is thought to enhance participation, and thus facilitate the efficacy of the group. Those who argue that virtual work enhances cooperation (for example, Adkins & Brashers, 1995) base their observation on the fact that due to the lack of physical and auditory presence, CMC provides an opportunity for group members to participate equally in the conversation. However, recent findings in several areas of linguistics reveal that identity (Benwell & Stokoe, 2006) and power relations (Holmes & Stubbe, 2003) are discursively constructed during the course of the interaction itself. This suggests that computer-mediated communication in itself does not facilitate equal participation, as described above, because participants actively negotiate their identities and relationships through interaction. Besides this function interaction in a virtual team has several other intertwining functions: it is the means of completing the work through discussions, negotiations, orders, enquiries, and so forth; the means of establishing social relations, as well as the means of forming and negotiating member and team identity. To understand how these functions are completed if the communication takes place in a computer mediated setting, we have to examine how communication happens, and observe the language and discursive practices used in the interactions.

The study of computer-mediated discourse and the study of organisational discourse are both complex and interdisciplinary pursuits in their own rights. As indicated in the above comments, the analysis of the computer-mediated discourse of virtual teams will provide answers about the new medium's effect on language use, cooperation, team and identity formation for both disciplines. The need for empirical studies, where the discourse and language use of the team members are closely examined, is evident from the literature of both disciplines (Boczkowski & Orlikowski, 2004; Herring, 2007). The main aim of this chapter, therefore, is to introduce an interactional approach to synchronous CMC data. By taking a bottom-up approach, and closely observing interactions of an online discourse community, it will provide adequate explanations of both computer-mediated and organisational discourse analysis regarding language use in virtual teams.

DATA

In this chapter I analyse naturally occurring IM conversations. The data was collected in a virtual team of a global consultancy company based in London, UK. The team comprises 18 members dispersed geographically across several countries, including: China, India, Spain, Portugal, Germany, Hungary, the USA, the UK and South Africa. The official company language is English; the ratio of native and non-native speakers is 9:9. The team has 13 female and 5 male members and the positions of the members within the team spans 3 levels of the organisational hierarchy. With the consent of the national head of the group, I approached the group members to participate in this research, and log IM conversations. Six team members volunteered to take part in my study, and over a period of two months provided me with the IM logs at regular intervals (depending on whether they could fit the data collection into their schedule). However, as some of the volunteers had been saving logs for a longer period for their own personal records, these were put at my disposal, too. Consequently, the first set of data dates back to November 2007.

Generally, due to privacy and confidentiality issues, the observation of real virtual teams has been very limited in the research literature. However, as Martins, Gilson and Maynard (2004) point out, "it is imperative, that empirical research move out of laboratory settings and into the field in order to advance the literature through asking and answering of questions that cannot be adequately tested in a laboratory setting"(p. 823). This research therefore aims to contribute to 'field' observations, and illustrate through naturally occurring data how members of a virtual team adapt to the requirements of the new communication medium.

Naturally, privacy and confidentiality were important considerations when approaching the data. The participants were required to read the logs before submitting, and delete anything they considered confidential. The deleted items in the text were replaced with a general reference term (for example, *location*, *company*). The names of the participants were changed, too; however, the pseudonyms were chosen to reflect their genders. In terms of conversation length, the collected corpus varies widely; the texts range from short exchanges including two turns, to conversations lasting for several hours. In order to avoid revealing the identity of the participants through their language use or the business issue at stake, shorter extracts, rather than complete conversations were included in this chapter. However, the context of these shorter extracts, the content of the preceding and following parts of the conversation – if known and deemed important from the point of view of the analysis – will be described and taken into consideration.

The importance of the context in interpreting interactions and in interaction management will be described in the following discussion. I then examine theoretical frameworks that account for the ethnographic, contextual and interactional aspects of synchronous CMC: contextualisation and politeness in particular; followed by a description of the methodology applied in the data analysis.

THEORETICAL AND METHODOLOGICAL BACKGROUND

Context in Text Based CMC

In face-to-face interactions, as noted by John Gumperz (1982), the physical context plays a crucial role, because interactants rely on the contextual and social information of the interaction when they are signalling, or interpreting how the semantic content is to be understood, and how each sentence relates to what precedes or follows. The contextual presuppositions and interactive cooperation are signalled by so-called contextualisation cues – surface features including, for example: prosodic phenomena, dialect, style, code, lexical and syntactic options, formulaic expressions, conversational openings, closings, sequencing strategies, and non-verbal signs, body movements and gestures. In text-based CMC, most of these contextualisation cues are missing, due to the lack of audio and visual information. The result is that the participants might have difficulties contextualising the interaction, interpreting and making sense of the utterances and signalling cooperation; and consequently miscommunication might occur. It is not surprising, therefore, that among the negative aspects of virtual work, communication difficulties and misunderstanding (Cornelius & Boos, 2003; Staples & Zhao, 2006) are the most prominent.

To avoid miscommunication – a task of high importance in work-related interactions – participants have to ensure that their messages are formulated so that they are interpreted in the intended way. In order to achieve the communication goal of the participants, the text-based messages have to accurately reflect both the intended meaning and the function. This suggests that the merely written linguistic exchanges are the site for creation of the context, and participants rely on contextualisation cues evoked by, and embedded, in the typed messages when interpreting messages or signalling cooperation.

Interactional Sociolinguistics

As the context, the creation and negotiation of the meaning and the signalling of the activity in the interaction are crucial aspects of this study, in my analysis I take an interactional sociolinguistic approach. Interactional sociolinguistics has its roots in anthropology, sociology and linguistics and shares the concerns of all these fields with culture, society and language (Schiffrin, 1994). Interactional sociolinguistics allows the researcher to take into consideration the wider (social and cultural) and closer context and its impact on the interaction, and at the same time take a bottom-up approach to examine the creation and negotiation of social and linguistic meaning during the interaction. Interactional sociolinguistics is a discourse analytic method, which employs the techniques of conversation analysis for micro-level explorations of interactional data, but at the same time takes a top-down approach to consider socio-cultural conditions to account for communicative practices (Stubbe, Hilder, Vine, Vine, Marra, Holmes & Weatherall, 2003).

Due to the fact that the social, cultural, and linguistic aspects of the interaction are all taken into consideration during the analysis, interactional sociolinguistics is particularly suitable as an analytical tool to examine discursive practices at the workplace. In the business setting, the closer and the wider contexts of interaction are extremely important, as noted by Holmes and Stubbe (2003): "workplace interactions ... tend to be strongly intertextual in nature, and are embedded in the business and social context of a particular work group as well as in the wider social or institutional order" (p. 11). In CMC, on the other hand, the linguistic practices come into prominence: here interactional sociolinguistics provides an analytical framework that accounts for how the linguistic choices of the participants contribute to the creation of the context and the negotiation of meaning. It also throws light on the discursive practices used by the participants to achieve the various functions of communication in a virtual team.

Politeness

As noted above, one of the functions of communication in a workplace is to get things done. In a virtual team, in particular, people engage in linguistic interactions to make decisions, to express agreement or disagreement, to criticise, offer advice, delegate tasks, and so forth. However, in order to maintain good working relationships, people also have to constantly balance the work-related interactional events with the expression of respect, and the construction of social rapport. The task of displaying cooperative and respectful intent is achieved through linguistic politeness. Politeness, as noted by Holmes and Stubbe (2003) is an important aspect of workplace interaction, and therefore will be a main consideration in my analysis, too.

In politeness research, the seminal notion of 'face' (Goffman, 1967) refers to the individual's self-image presented through the use of language, behavioural and gestural displays. In Brown and Levinson's (1987) definition, face can be positive and negative. The former is a positive self-image; which participants want to maintain in the interaction. This means that people have a desire and expectation that others who surround them in interaction will work to affirm and preserve their public persona (Morand & Ocker, 2002). The negative face refers to the people's need for freedom and their desire not to be impeded. When people want to act cooperatively, they have to avoid posing threats to each others' positive and negative faces. In workplace interactions, however, face threatening speech acts (FTA) are prevalent: criticising, disagreeing, giving orders or asking somebody to account for something could become attacks against the face of the conversational partner, if these acts are not balanced with discursive practices to avoid or mitigate the threats. I agree with Schnurr, Marra and Holmes (2008), who found that "the importance of politeness norms is especially salient in workplace teams" (p. 211). Consequently, the discursive practices that allow for the balance of getting things done and caring for the participants' face have an important role in workplace interaction. In terms of CMC, however, the requirement of employing linguistic politeness strategies contradicts the requirement of the new medium: research has shown that in a CMC environment "many users will attempt to economise (i.e. on writing) by cutting corners and thus losing elements such as 'face work' and mitigation, leading to expressions that in other contexts might seem direct and rude" (Benwell & Stokoe, 2006, p. 263). The close analysis of IM interactions in this paper will allow an insight into how this contradiction appears in workplace conversations: whether the participants follow the rule of CMC to achieve high efficiency, risking that they'll 'sound' rude or impolite, or will the consideration for each other's face be a stronger motivating force?

In order to answer these questions, I draw on the theoretical framework of relational work proposed by Locher and Watts (2005; 2008; Locher, 2006; Watts, 2003). Locher's and Watt's discursive approach to politeness is based on the theoretical concept of relational work and emphasises the interactionally grounded nature of politeness. Relational work, in their understanding, refers to the interpersonal level of communication (Locher, 2006), and describes the 'work' that individuals invest in negotiating relationships with others (Locher & Watts, 2008,). They note that relational work "comprises the entire continuum of verbal behaviour from direct, impolite, rude or aggressive interaction through to polite interaction" (Locher & Watts, 2005, p. 11). Drawing on this framework therefore enables me to identify the discourse strategies that contribute to the enactment of relational work in an online environment, as well as to account for linguistic features that cannot be necessarily classified as polite or impolite (Locher, 2006). The analysis in this chapter therefore will shed light on how relational work is realised discursively online, and will ask: what are the features that both enhance and limit relational work?

Methodology

In the previous section I have described in detail that the interactionally grounded approach of interactional sociolinguistics and the theoretical framework of linguistic politeness and relational work will account for the discursive practices of negotiating meaning and relationship in CMC. However, it has to be borne in mind that language use on the internet is highly variable. Online communities develop their own social and linguistic norms, mostly through textual, linguistic interactions (Cherny, 1999), and establish a shared knowledge during the course of these interactions.

People who are united by a common enterprise, and develop shared practices, are referred to as a Community of Practice (CofP) (Holmes & Meyerhoff, 2000). The concept of CofP, developed by Lave and Wenger (1991), is used in social and linguistic studies. It offers a useful tool to approach virtual teams: their use of the word "community" does not require co-presence or a well-defined group, but "participation in an activity system about which participants share understanding"(p. 98). The second characteristic criteria of CofP are the shared goal and negotiated enterprise, which are also elementary requirements in the work of the virtual teams (see, for example, Tavčar et al. 2005). Individuals within the virtual team must have a shared notion of the outcome they are working towards. A clear definition of what the organisation wants to achieve is important in virtual teams because goal setting is one way of creating a background knowledge and a context in which conversational exchanges make sense. Finally, the third defining condition of a CofP is the development and the sharing of practices – including linguistic practices – and this has already been detailed above. Due to its suitability as a thinking tool for the study of online communities, the concept of CofP is used in this chapter to approach the data source team, as well as the development and negotiation of shared (linguistic) practices and norms.

In terms of data, as it has already been detailed, the publishable length of the interactions has been limited. The data extracts, however, will comply with the requirements for the chunking process of the contextualisation studies (Gumperz, 1992). The method of 'framing' means that the data is segmented off according to what the researcher sees as belonging together. The 'frames' in Gumperz's (1992) formulation constitute the ground against which communication takes place. Gumperz argues that frames are constantly adjusted or "attuned" as topics shift, perspectives change and an interaction progresses through various organisational stages, and that they significantly affect how communication is interpreted (p. 42).

In order to identify how relational work is achieved online, and examine the discursive strategies employed by the participants to ensure that both their cooperative intent and the intended meaning is understood by their communicative partners, I first approach the data from an interactional viewpoint, focusing on a macro-level phenomena of small-talk.

Non-Task-Oriented Talk

The research on virtual teams has postulated that non-task-oriented (that is, talk that is not related to work) and informal communication may be diminished in the virtual environment. However, the extensive literature review of Martins et al. (2004) revealed that this postulate has been both supported and challenged, when non-task-oriented talk in CMC and face-to-face communication was compared. One explanation for this contradiction is that each CofP develops his own norms of communication, so the function, evaluation and acceptance of non-task oriented talk might differ in each CofP.

Non-task-oriented talk, just like in real work environments, is generally negatively perceived in virtual environments, too (see, for example, Flynn, 2004; Holmes & Stubbe, 2003), in spite of the fact that it is an important means by which the interactants negotiate relationships, mark the boundaries of conversation or use as "a positive politeness function of re-establishing cordial relations following intense and occasionally heated debate" (Holmes & Stubbe, 2003, p. 91). Consider example (1):

Example (1)

1 Tom (12:20 pm): okay...whenever you have the time, I have a question for you: why are we trying so

2 hard to squeeze the last few minutes out of this process step, when the real time-consumer is the

3 venue booking process?

4 Beth (12:21 pm): because my boss says (Location) is not following global process

5 Beth (12:21 pm): the global process is that scheduler do not need to ask (name) for approval before

6 loading

7 Beth (12:22 pm): the approved list is already the negotiated compromise

8 Beth (12:23 pm): if too many sessions still go back to (name) for approval, it means the approved list is

9 useless and then we may have not choice but to allow ALL sessions to be approved w/o (name)

10 approval

11 Beth (12:24 pm): means (Location) no longer have control on trainers scheduled

12 Beth (12:24 pm): wld u prefer that?

13 Tom (12:27 pm): your action accepted unconditionally, I can adapt to any set of rules... and please

14 calm down (I can see the vein on your forehead bulging).

15 Beth (12:34 pm): hahaha.. ur vein will also be bulging if u are being asked again and again why

16 (Location) is not following global process

17 Tom (12:36 pm): again, accepted...and do take a deep breath, I've rarely seen you this pissed... sorry

18 about your day, it's not like you to be so irritable.

19 Beth (12:37 pm): i am not pissed. sorry if the ping sounded so

20 Beth (12:37 pm): haha

21 Beth (12:38 pm): i am just trying to finish the review quickly

22 Beth (12:39 pm): no worries, I prob will have more qns for your as i run down the lis

23 Beth (12:39 pm)::)

24 Tom (12:39 pm): there's never any need for apologies between us...and please do carry on, and let me

25 know if you need further info.

Beth is Tom's immediate reporting manager. They have been engaged in the IM discussion for 20 minutes preceding this extract, discussing an issue about a shared database. We join the conversation in line 1, where Tom's *"okay"* and the sign for hesitation "..." indicates that he is ready to change the topic and move on. Tom's question (line 1-3) is answered by Beth (lines 4-12) with a series of messages sent in a quick succession. In spite of the fact that there is no visual contact between the participants and there is no verbal indication of Beth's state of mind, in the following conversation Tom says: "*I can see the vein on your forehead bulging*" (lines 13-14), and, "*I've rarely seen you this pissed*" (line 17). His reaction suggests Beth's emotional state was inferred from the series of messages sent in line 4-12. The explanation for his inference lies in the speediness of the consecutive messages: the five messages were sent during the course of three seconds. The message length varied between 38 words and 4 words, meaning that on average Beth typed 28 words in one second. This very high typing speed combined with the fact that the quick succession of the messages guaranteed the holding of the conversational floor and did not allow Tom to take a turn. This could have been interpreted as Beth's high emotional involvement in the issue at stake. Furthermore, Beth's question in line 12, "*Would you prefer that*?" is a direct, unmitigated request towards Tom to choose from two options (yes/no). This question puts pressure on Tom to express his opinion and make a choice, thus threatening Tom's negative face. This flouting of the politeness norm could also be interpreted by Tom as a sign of anger. In line 13, the first part of Tom's message includes the response to Beth's preceding question, as well as his off-topic remark about his conversational partner's emotions. The inclusion of the non-task-oriented remark is divided from the previous part of the message with the sign for hesitation "...".

In lines 13-20, the topic of Beth's anger and the work-related topic appear in parallel. Beth's response – the written form of laughter – indicates that Tom's initial remark was received well. Beth goes on to justify her reason for being upset, and by repeating part of Tom's message ("*ur vein will also be bulging*") she acknowledges Tom's observation, but makes an attempt to redirect the conversation back to the task-related issue. Tom in his response (lines 17-18) continues the non-task related topic; and goes on to direct his superior: "*do take a deep breath*". This directive was interpreted as humorous, as indicated by Beth's laughter in line 20. In line 19, Beth's self-reflection reveals her acceptance of how her utterance might "sounded" upset, although she denies the actual fact and apologises to Tom. She then uses a series of linguistic devices to re-establish the familiar relationship (lines 19-23): an apology, followed by the imitation of laughter, hedging phrase "*just*", and a smiley emoticon to enforce her friendly intent.

The reason I chose this particular example is that it serves as an illustration of how small talk can intertwine the task-oriented interaction, and exemplifies well the function of small talk. Tom's digression from work-related discussion served as a relational work strategy to readjust the power relations and reorient the relationship from professional to personal between the participants. Also, Tom's reference to Beth's physical appearance enabled the participants to remove the conversation from its 'virtualness' and relate to a real, face-to-face meeting, thus establishing a friendlier, more personal working environment.

The extract also showed how the participants in the interaction drew on their computer-mediated communicative competence (see, for example, Cherny, 1999; Simpson, 2005; Darics, 2008) when making sense of the chronemic cue (that is, time-related cue; see, for example, Ledbetter, 2008) of the high speed utterances. Their understanding of the potential of the communication technology (for example, the approximate typing speed and the methods of passing the floor) allowed Tom to infer the meaning of the rapid succession of messages as a sign of emotional involvement; and resulted in Beth's acceptance of the fact that her discourse strategy could, in fact, be interpreted as the sign of anger (line 19). The inclusion of the non-task-oriented messages in this short extract clearly indicated, that although economising was a consideration on a micro-level (see the lack of capital letters and punctuation, the abbreviations /e.g. "*u", "ur", "qns"*/), on a macro-level the relational work, the discursive strategies to attenuate the tension, the caring for each other's face and the communication of cooperative intent were the primary consideration.

In the second part of the analysis I will build on this finding, and examine the language use and linguistic strategies of the participants in the light of the new communicative environment. I will specifically focus on the creative use of "audio" and "visual" contextualisation cues, and their function in relational work.

AUDIO AND VISUAL SIGNALS IN CMD

Audio and visual signals in a conversation have several discursive functions: they are important tools to mark polite and impolite intent, to signal topic change or the passing of the floor to the next speaker. It has already been mentioned that they also serve as contextualisation cues to signal conversational cooperation, which is an important consideration when work has to be completed through communication. Based on my analysis of the corpus and as seen in example (1) in the previous section, it is obvious that communicating cooperative intent and politeness considerations are of great importance in the interactions of the data source team. In the following section, I examine how exactly the participants achieve it without the auditory and visual means normally available in face-to-face interactions, and highlight the linguistic strategies that were developed as a response to the obstacles caused by the communication medium. A review of literature revealed that the creative ways in which users of CMC adapted their language use to the new medium have attracted the attention of scholars since the early stages of CMC (see, for example, Danet, 2001). Herring (2001) found that CMD, "despite being produced by written like means, frequently contains features of orality" (p. 617). In what follows, I focus on these instances of 'orality', their interactional functions and their role in achieving relational work.

HESITATION

Hesitation devices (for example, *uhm*, *er*, *ur*, repetition of a syllable, and so forth) can function as floor holding devices (Locher, 2004) when the speaker wants to indicate that he/she needs to find the next focus or needs time to think about the next utterance; or as hedging devices (Brown & Levinson, 1987) to mitigate FTAs. In spite of the fact that "hesitation markers are characteristic of spoken language" (Locher, 2004: 120), hesitation – more specifically the sign of hesitation "..." – is strategically used in the corpus, too. It has to be noted that the visual representation of hesitation "..." is not unknown in other written genres; what is different in this case, though, is the relative weight and interactional meaning assigned to them. It also has to be pointed out that it is not known, whether the three full stops "..." (or slight variation of these) represent actual hesitation in thinking/typing or not. Therefore I consider "..." to be a conventional sign for signalling hesitation, rather than a representation of reality.

Extract (2) was chosen to exemplify the interactional uses of the hesitation signs. The hesitation sign "..." in this short extract is used 5 times; when introducing self-correction, marking topic change to apology, acceptance of suggestion and acceptance of apology.

Example (2)

1 Kate (8:43:20 AM): ok, I think we can talk by 2 pm my time..is that ok for you?

2 Liz (8:43:42 AM): Sure, it is 5PM here

3 Kate(8:43:53 AM): isn't your therapy?

4 Liz (8:43:55 AM): Do you have 8:30 now?

5 Liz (8:44:01 AM): Ops...8:38AM?

6 Kate(8:44:03 AM): yes, it is

7 Liz (8:44:10 AM): As changed time I wanted to make sure

8 Kate(8:44:21 AM): we can make it earlier

9 Liz (8:44:24 AM): And....please I wanted to apologize for the ping *(jargon for contacting someone via IM)*so early

10 Kate(8:44:25 AM): 1 Pm

11 Liz (8:44:26 AM): NP

12 Liz (8:44:35 AM): Oki... 1PM is better...

13 Kate(8:44:41 AM): oh, no worries dear...so sorry you are not feeling well

The conversation takes place between two female co-workers. We join the conversation in line 1, when they move on to a new topic to discuss a mutually suitable time for a discussion. In line 4, Liz wants to check the time at the location of her conversational partner. This enquiry is immediately followed by the interjection "*ops*", signalling a sudden realisation of her mistake. Her admission of mistake/incompetence constitutes a threat against her own positive face, so the following hesitation sign could be interpreted as a mitigation strategy to attenuate the force of the FTA. What is interesting about this discourse strategy is that both the interjection and the hesitation are highly context-dependent; what is more, the interpretation of the interjection in spoken discourse is highly influenced by the intonation and facial gestures. Thus, when employing these elements of spoken discourse in writing, Liz draws on her own and her conversational partner's previous knowledge of spoken linguistic situations, using contextualisation cues from spoken interactions she considers known to both participants.

The next appearance of the hesitation sign (line 9) illustrates its function as a hedge and topic change signal. In line 9 the conjunction "*and*" is followed by the hesitation sign, which can be interpreted as a floor holding strategy preceding the start of a new topic. However, as the hesitation sign is followed by an apology, it can also be interpreted as a mitigation strategy for the FTA constituted by the apology (Brown & Levinson, 1987). There are several turns sandwiched between Liz's apology (line 9) and Kate's response (line 13). Interestingly, Kate's response starts with the interjection "*oh*"; again, a linguistic strategy that in speech strongly depends on the intonation. In her response, Kate uses the hesitation sign in double function: firstly, it mitigates the face threat constituted by the expectation to accept the apology; secondly it helps to move the topic on from accepting the apology to expressing sympathy.

Preceding Kate's acceptance of the apology (line 13) is Liz's response to the suggestion made by Kate in line 10. Kate's suggestion, starting in line 8 "*we can make it earlier*", and then going on in line 10 "*1 PM*" is a FTA, because it creates pressure on Liz to either accept or refuse the suggestion. Accepting a suggestion in Brown's and Levinson's (1987) definition is also a face threat, as it indicates the speaker's submission to the previous speaker's power. In her response (line 12) Liz uses the hesitation sign twice, clearly as a hedging strategy to mitigate the FTA of accepting the suggestion.

It is clear from example (2) that the hesitation sign is used strategically to express deferential politeness, to mitigate acts that threaten the speakers' own face, as well as a strategy to signal the holding of the floor. However, in the business environment, hesitation is often used as a mitigation of directive intent, along with other strategies, such as modalised forms and justification (Holmes & Stubbe, 2003). This function has also been prevalent in the corpus, as exemplified in the next extract.

Example (3)

1 Theresa (11:59:11 AM): Hi Dear!

2 Maggie(11:59:19 AM): hi Theresa

3 Theresa (11:59:26 AM): Just checking in if you need anything from my side...

4 Theresa (11:59:32 AM): And also need a quick favor...

5 Maggie(11:59:49 AM): sure dear

6 Theresa (12:00:20 PM): By end of your day... would you send me our updated master please?

7 Maggie(12:00:33 PM): sure dear

8 Maggie(12:00:52 PM): do you want me to send it now?

9 Theresa (12:05:46 PM): Yes please

10 Theresa (12:05:54 PM): I will be here if you need me...

11 Theresa (12:05:56 PM): Thank you dear

12 Maggie(12:09:47 PM): NP THANKS!

Here, Theresa "*pings*" Maggie (that is, contacts her via IM), a co-worker, to request the "updated master". Getting an equal to complete a task requires careful consideration of politeness. Holmes and Stubbe (2003) note that "attention to politeness concerns tends to increase as the 'right' of one person to give directives to another decreases" (p. 41.). This clearly is the case in this example, as Theresa employs various hedging strategies to mitigate the force of her request. She starts (line 3) with a justification for instant messaging, using "*just"* as a minimiser, and then she inserts the hesitation sign at the end of her message, as a floor holding device to indicate that more is to come. This whole utterance (line 3) could be viewed as a forewarning, an introduction to the proceeding request, in which she uses both diminutive devices ("*quick*", "*favour*") and a hedging (hesitation sign) to mitigate the FTA she is about to commit. Line 3 and 4 illustrate Theresa's assessment of the face threatening force of the forthcoming speech act, because she does not actually make her request until line 6. She starts with the expected deadline "*by the end of the day,*" and continues with a hesitation sign in hedging function, then expresses her request in modalised interrogative form, finishing with a formulaic politeness marker "*please*". Theresa's obvious effort to mitigate the force of the FTA of her request was clearly successful, as can be seen in Maggie's response (line 7) and her offer to execute the task immediately (line 8). The final occurrence of the hesitation sign (line 10) is, again, closely related to a hedging function. Here, Theresa ensures Maggie of her support. However, her offer to help suggests that perhaps Maggie is not capable of completing a task on her own. By offering her help she puts pressure on Maggie to either accept or reject it. Theresa's use of the hesitation sign here serves as a hedging device to mitigate the face threatening force of her offer. The exchange is finished in a friendly tone: Theresa thanks Maggie for her cooperation, and finishes her message with a familiar addressing word "*dear*" (line 11); Maggie uses the formulaic term "*NP*" (no problem), and she also says "THANKS!", most likely as a response the Theresa's offer in line 10. Her strategic use of capital letters adds an extra emphasis to her message (Darics, in press), thus ensuring Theresa that no face damage has taken place.

Example (2) and example (3) illustrated that participants strategically use the sign of hesitation as a discourse strategy to signal that they want to continue their turn, and also as a hedging device in face threatening linguistic situations. As the interpretation of the hesitation sign is closely related to a hesitation in spoken interactions, participants have to rely on their understanding of previous experiences in oral interactions, and transfer the language use of these situations to the computer-mediated setting. Thus, by employing and correctly interpreting linguistic strategies that draw on a shared knowledge, participants enforce the development of shared norms and practices within the virtual team, and therefore facilitate the development of the CofP.

BACKCHANNELS

Similarly to hesitation, backchannels (for example, *hm, mm, ah, oh, uh-huh*) are typical features of spoken discourse, signalling continued attention, filling pauses or signalling uptake or surprise (Watts, 2003). In terms of CMC, some researchers found that "chat lacks reaction signals (m, mhm, uh-huh, yeah...)" (Crystal, 2001, p. 40). Others maintain that backchannel signals in CMD "are important for determining the attention state of the interlocutor as well as establishing whether the speaker's intentions have been understood."(Cherny, 1999, p. 182; see also Herring, 1999). As backchannel signals are important means of indicating conversational cooperation (Gumperz, 1982, p. 163), their non-presence might be interpreted as uncooperative and/or impolite. If we consider the team members' continuous attention to politeness throughout the logs, it is not surprising that backchannel signals are often used to get the interactants' cooperative intent across. A review of the logs revealed that the most frequently used backchannel signals are *ah, oh, mm, hm*, and the spelling variations of these.

The following extract exemplifies the usage of backchannel signals in various functions.

Example (4)

1 [16:00] Paul: Hello Jack

2 [16:00] Jack: hi Paul

3 [16:01] Paul: do you reckon the (programme name) migration has anything to do with the fact that i'm being told i do not have access to the (abbreviation of the name of an application):)

4 [16:02] Jack: i can see that you do have access!!:)

5 [16:02] Paul: very strange... hmm

6 [16:02] Jack: it is

7 [16:02] Paul: let me clear my cache and see what happens

8 [16:03] Jack: it is very strange, i think that (name) issue's have contributed to problems recently

9 [16:04] Jack: hopefully this will help resolve

10 [16:04] Jack: the new server should be better

11 [16:04] Paul: ok coolio thanks!

12 [16:16] Paul: hmm, its still not working for me

13 [16:16] Paul: u think i should hang on till friday and see then?

14 [16:17] Jack: what error msg do you get

15 [16:18] Paul: (error message deleted)

16 [16:19] Jack: mmmm right

17 [16:20] Paul::)

18 [16:20] Jack: have you submitted a request?

19 [16:22] Paul: not yet should i do that?

20 [16:23] Jack: yes please, be interested to see if it comes to me or to the (abbreviation) office

21 [16:24] Paul: OK will do that now then

22 [16:25] Paul: done

Paul 'pings' Jack to discuss a problem he encountered with a computer application. Both Paul's and Jack's engagement in the relational work and their continuous attention to each other's face needs are evident throughout the log. They exchange greetings (line 1-2), and then Paul asks for Jack's opinion (line 3) about an IT problem. This question, however, could also be interpreted as a request for help. Paul employs a variety of linguistic and pragmatic strategies to mitigate the force of this request, such as the hedging politeness marker "*do you reckon,"* the interrogative form and the smiley emoticon. Jack in his response (line 4) expresses an opposing opinion, stating that he does not see a problem with the system. The force of this contrasting opinion is lessened by the smiley emoticon at the end of the message. The first occurrence of the backchannel signal "*hmm"* is in Paul's response to Jack's negative reply (line 5). His response, "*very strange,*" is followed by the hesitation sign and a backchannel signal "*hmm,"* indicating engagement with the issue, and processing of the contradictory information. In the following lines (line 6-11) Paul suggests a solution, Jack agrees and expresses his sympathy and finally Paul thanks Jack for his cooperation. However, 12 minutes later Paul continues the conversation (line 12), starting his resuming message with a backchannel signal "*hmm*". Clearly, here the backchannel signal does not function as a signal of engagement with the issue or information processing. "*Hmm*" in the initial position in line 12 should be interpreted as an interactional strategy, a device to mitigate the force of the contradiction and the renewed request for help. In line 14, Jack asks for more information about the error message and after receiving a response from Paul (line 15), Jack uses the backchannel signal "*mmmm"* (line 16) to signal his thinking process. This is followed by "*right,"* signalling his understanding/acceptance. The function of Jack's message (line 16) is merely interpersonal, assuring his conversational partner of his comprehension. The effort he invests in relational work is clearly taken the right way by Paul, who uses a smiley emoticon as an acknowledgement in line 17.

This extract provided examples of how using backchannel signals enabled the participants to navigate a pathway through a situation, where contrasting issues were discussed. The written equivalents of spoken backchannel signals were used in interactional functions; firstly, to indicate the involvement in thinking, thus emphasising cooperation; and secondly as a mitigation strategy in a situation where the speaker's own face was threatened by the speech act of asking for help. Also, in a similar way to the hesitation sign, backchannel signals also recall the sounds of spoken interactions. By doing so, these signals enable the participants to evoke face-to-face meetings and break away from the virtual realm; and thus contribute to the development of a cooperative, close working relationship.

EMOTICONS

Emoticons are another widely used – and arguably the most well-known – means of compensating for the reduced contextualisation cues of CMC. These keyboard-generated emotion signs resemble a human face turned sideways (for example:) or:-) 'smiling face', ;) or ;-) 'winking face', >:('frowning face') (Thurlow, Lengel & Tomic 2004, p. 125). Numerous studies have been devoted to these symbols, yet their discourse and interactional roles receive scant attention. Previous research indicates that emoticons represent facial expressions, and are used as a means of expressing emotional information in CMC (Cakir, Bichelmeyer & Cagiltay, 2005; Derks, Bos & Grumbkow, 2007; Herring, 2001) and that they are important social cues for impression formation (Fullwood & Martino, 2007). From a discourse analytic point of view, findings included that emoticons "strengthen the verbal part of a message" (Derks, Bos & Grumbkov, 2008, p. 101) and that they "prevent misunderstanding" (Cakir et al., 2005, p. 14). How these effects are achieved, however, remains unresolved. As stated by Walther and D'Addario (2001), "it is still not clear how emoticons are interpreted in CMC: as iconic and unconscious like nonverbal facial expressions or, like wording, as deliberately encoded elements of intentional communication" (p. 7).

If we consider that emoticons are used to represent facial expressions, their functions consequently should be comparable to the functions of facial expressions in face-to-face interactions. One of these functions is the emotive communicative function, which may intensify positive or negative verbal cues, and modify or contradict emotionally loaded verbal cues (Sifianiou, 1992).

EMOTIVE FUNCTION

A review of the corpus revealed that emoticons are widely used in the IM communication of the team; their usage and function, however, varied greatly. Generally, in line with previous research in the field (see Derks et al., 2008), emoticon use indicated the familiarity of the conversational tone, and the closer and more familiar the relationship between the participants has been, the more emoticons they used. The most prevalent function of the emoticons was the emotive function mentioned above. This function is the closest equivalent to a spontaneous, unintentional smile in face-to-face conversation, signalling, for example, friendly intent.

Example (5)

1 Viv: Hi

2 Viv: i'm off the phone, i have 15 min. until my next meeting

3 Sandra: shall i call u now

4 Viv: can we have a call at 2.00 UK time as I recommended?

5 Viv: is it urgent?

6 Sandra: what is time there now

7 Viv: 12.47

8 Sandra: ok, so at what time u'll come to office 2moro

9 Sandra: in the morning

10 Viv: 9.30 am

11 Sandra: ok, i will talk to you tomorrow morning:-)

12 Sandra: thx u

In example (5) Sandra, a newcomer to the company and new member of the team is talking to Viv, her superior, to discuss the time of their next phone call. Her first tentative request (line 3) is turned down by Viv (line 4), who refers to an earlier suggestion she had made. Sandra then moves on to find out about Viv's plans for the following morning (lines 8-9), and after receiving an answer (line 10), she concludes the session with her suggestion for the time of the phone call (line 11), finished with a smiley emoticon, and by thanking Viv (line 12). Sandra's smiley emoticon (line 12) is a way of signalling her friendly intent and that no face damage has been done by Viv when she refused Sandra's first suggestion.

DISCOURSE FUNCTION

The emotive function of emoticons and their appearance as 'surrogates' for real facial expressions has been extensively dealt with in research literature (Danet, Ruedenberg-Wright, & Rosenbaum-Tamari, 1997; Walther & D'Addario 2001, Derks et al., 2008); however, their strategic use in discourse function has only received scant attention. In discourse function, emoticons do not only contextualise the meaning and the interpretation of the verbal utterance, but carry interactional or even referential meaning.

Example (6)

1 Chris (3:25:02 PM): another q for u

2 Alex (3:25:15 PM): yes

3 Chris (3:25:23 PM): how do I dial using a fixed line...to get to the (telephone centre)

4 Chris (3:25:30 PM): (telephone number)

5 Chris (3:25:35 PM):fr here

6 Alex (3:25:48 PM): are you in hotel?

7 Alex (3:25:55 PM): can it dial direct out

8 Chris (3:25:58 PM): in apt

9 Alex (3:26:11 PM): ok, then just dail that number

10 Alex (3:26:37 PM): I am not sure your fix phone provider is (telephone provider 1) or (telephone provider 2)

11 Alex (3:26:46 PM): so can try both south and north number

12 Chris (3:26:52 PM): I do not know

13 Alex (3:26:54 PM): just dial number directly

14 Chris (3:27:33 PM): i tried...and i got msg that this number is not in service

15 Alex (3:27:43 PM): then (telephone number)

16 Chris (3:28:57 PM): it works...thks

17 Chris (3:29:02 PM)::-)

18 Alex (3:29:04 PM)::-)

In example (6), Chris changes the topic of the preceding conversation (line 1) to ask Alex a question, (in his message "*another q for u*", "*q*" stands for question, "*u*" stands for you). Alex asks for more details to clarify the situation (lines 6, 7, 10) and makes a suggestion in line 9, repeated in line 13. This is followed by Chris's account (line 14), in which he declares that the method suggested by Alex is not working. His strategy to mitigate the force of the disagreement includes the use of the hesitation sign. In line 15, Alex suggests a new telephone number for Chris to try, and after approximately one minute Chris declares that "*it works*". His message is followed by a hesitation sign, perhaps indicating a topic change or a mitigation of the threat against his own face constituted by the speech act of thanking. His message is followed by an emoticon (line 17): the smiley face is used in an emotive function to signal his satisfaction with the solution, or perhaps to intensify the force of the thanking. This usage corresponds with the definition of the contextualisation cues, because "contextualisation cues do not function as isolated signs, they co-occur with and are mapped onto or are paradigmatically tied to, lexical signs" (Gumperz, 1992, p. 50).

However, if we examine Alex's message in line 18, we see that there are no lexical signs, and no verbal message to accompany the emoticon. This suggests that here the emoticon itself carries the actual meaning of the message. This conclusion becomes even more apparent if we consider that line 18 has been the final turn of this conversation. Clearly, the emoticon used in this function is highly context-dependent, because participants have to be able to decipher the intended meaning based merely on the context in which the emoticon is used. In Alex's case, the smiley emoticon could equally mean "*I was happy to help*" or "*I'm glad it works now,*" or both.

HUMOUR FUNCTION

The third function can be viewed as an extension of the discourse function detailed above, in that emoticons in this function can carry a meaning independent from the verbal messages. The meaning in this case, however, is closely related to the inherent playfulness of this creatively constructed sign (see, for example, Danet, 2001). By 'humour function' I mean the usage of emoticons as a means of joking or teasing. The importance of this usage is explained by Holmes and Stubbe (2003), who argue that humour is a valuable resource in workplace interaction, a strategy to soften FTAs, and also an important aspect of workplace culture, that reaffirms group solidarity and contributes to the construction of an effective work environment. Considering the team members' continuous effort to invest in relational work and the general informality of the interactions within the team, it is not surprising emoticon usage with a humour function is prevalent in the corpus.

Example (7)

1 Kate: i hear rumours that you ARE going to be in (location)

2 Kate: clearly avoiding me though

3 Vera: rumours rumours

4 Kate: come on

5 Kate: am i seeing you are not

6 Kate: waiting

7 Vera: well the thing is this - i am flying in, being whisked somewhere and flying out

8 Vera: how about dinner on Thursday?

9 Kate: mmmmmmmmm

10 Kate: DEAL

11 Kate: do you need a place to stay

12 Kate: what food would you like to eat madam

13 Vera: i cant tell you more a) because the first bit i don;t know about myself and b) the second bit is just

14 TOO outrageous

15 Vera: somewhere near the air;-)port! my flight is at midnight

16 Kate: Okidokie

17 Kate: i love outrageuos

18 Kate: outrageous

19 Kate: sounds very exciting though

20 Vera: i hope i do:-(

21 Vera: 8-)

22 Vera: =-O

23 Kate: LOL

24 Kate: fabulous

25 Kate: dinner Thursday it is

26 Kate: what time do you land from the UK?

Kate and Vera both hold high-level positions in the managerial hierarchy. The relationship between them is very familiar, as is apparent from the style of their conversation (example (7)). They both use a range of linguistic and pragmatic devices when discussing Vera's visit and a possible meeting, continuously enacting their friendly relationship: capital letters add emphasis and express emotional involvement (lines 1, 10, 14) (see Darics, in press); repetition is used as a form of joking and as a means of stressing emotional agreement (line 3) (see Brown & Levinson, 1987); exaggerated backchannel signals mean acclamation (line 9, "*mmmmmmmmm*"); a jocular address term is used as a means of friendly teasing (line 12 "*madam*"), emoticons express humour (lines 15, 20-22), and finally the acronym "*LOL*" represents laughter (line 23, meaning 'laughing out loud').

The first appearance of an emoticon in humour function is in line 15: a winking emoticon embedded in the word "*air;-)port*". In the preceding discussion, Vera reveals that she will only spend a very limited period in the country she is about to visit, and so when setting up a meeting with Kate, she wants to indicate that she does not want to go very far from the airport. Her creative way of turning this suggestion into a humorous exchange by inserting a smiley emoticon within the word reflects the meta-textual nature of written CMC (Benwell & Stokoe, 2006). According to Herring (1999), this type of language creativity is fostered by the fact that messages stay on the screen for a longer period of time, thus "facilitating a heightened meta-linguistic awareness" (no page number). This meta-linguistic creativity is also apparent when the joking between Vera and Kate reaches its climax in lines 21 and 22. Vera uses an emoticon variation "*8-)*" that could be interpreted as a bespectacled face, and a shocked face "*=-O*". Her messages are followed by Kate's imitation of laughter "*LOL*" (laughing out loud).

The usage of emoticons as a source of humour, similar to the use of emoticons in discourse function, is highly context-dependent, and the correct interpretation might be affected by several factors, such as the participants' native language, CMC competency, or communication history within the group. On the other hand, if humorous emoticons are interpreted in the right way, they contribute considerably to the emphasis of the common ground and shared norms, and enforce solidarity within the group (see Holmes & Stubbe, 2003), thus enabling the development of a collegial, informal working environment in the virtual realm.

CONCLUSION

This chapter has shown that taking an interactional sociolinguistic approach and examining CMD of virtual teams through the lens of the theory of relational work might provide explanations for phenomena that previously could not be accounted for in computer-mediated discourse analysis (Herring, 2004). The analysis of organisational IM interactions has indicated that relational work and the care for the participants' face is an important consideration, and participants employ relational work strategies even at the cost of economising.

A macro-level analysis illustrated that non-task oriented talk is used as a means of doing relational work, and contributes to forming a collaborative working environment that enhances cooperation and efficient work. This observation might contribute to the understanding of computer-mediated organisational communication in that it is not advisable to limit or banish non-task oriented talk between colleagues. On the contrary, to provide opportunity for the development of the team and the CofP norms, and for impression formation and the maintenance of familiar relationships, communicators should be able to engage in talk that is not strictly task-oriented; for virtual team members cannot discuss non-task oriented issues during coffee breaks or in the copier room.

The micro-level analyses in this chapter focussed on the contextualisation cues that are thought to assist the participants in orienting themselves in the interaction (Gumperz, 1992). The practices adapted from spoken interactions seemed to enhance relational work in that their usage and interpretation drew on a shared experience of spoken interactions, thus facilitating the development of CofP communication norms; and also helped the participants to evoke face-to-face encounters and reorient to their personal rather than their professional self.

The written representation of hesitation, backchannel signals and facial expressions (that is, emoticons) were examined in more detail. The findings included that these signs are strategically used in discursive functions, even if they do not necessarily represent actual audio or visual signals. The examples illustrated that the hesitation sign is used as a means to express deferential politeness, as a means of signalling the holding of the floor, as well as a hedging device when giving directives. It has also been pointed out that by strategically using backchannel signals, participants are able to signal their involvement in the thinking process, thus indicating their cooperation. In terms of emoticons, three different functions were identified. It became apparent that the emoticons' discourse function and their contribution to relational work is salient, but to understand how exactly these functions are achieved would clearly require more scholarly attention. My findings regarding the creative use of discourse strategies adopted from spoken interactions agree with Ledbetter's (2008) observation: "online communication is best viewed not as a medium chronically debilitated by the absence of nonverbal cues but, rather, a medium affording a set of resources that allow communicators to pursue their relational goals" (p. 13).

It has to be pointed out, however, that the correct interpretation of the linguistic resources discussed in this chapter strongly depends on a shared experience of face-to-face interactions, as well as the close discourse context. This observation suggests that if the participants' experience of face-to-face interactions and the ability to decipher meaning from context differ, misinterpretation might occur. A practical implication of this idea is that organisations should take into consideration the linguistic, cultural and educational background of the team members, and provide them with opportunities to either equalise their differing expectations in CMC, or develop their own CofP communicative norms.

It is important to point out that the findings here are preliminary, and need to be tested through thorough investigations of empirical data. The findings of this chapter, however, might provide a basis for further analyses, where other factors, for example the power relation or the cultural background of the participants, are taken into consideration. Besides contributing to the academic description of CMD, the findings of the chapter provide a basis for self-reflection for virtual team members, too. Language usage in a computer-mediated setting should not be considered as self-evident: the communicators' computer-mediated communicative competence is essential to succeed and "organisational members should be made aware that choices they make while communicating play an important role in how they are perceived"(Adkins & Brashers, 1995, p. 315).

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KEY TERMS AND DEFINITIONS

Interactional Sociolinguistics (IS): Has its roots in anthropology, sociology and linguistics and shares the concerns of all these fields with culture, society and language (Schiffrin, 1994). It focuses explicitly on the social and linguistic meanings created during interaction, recognising the wider socio-cultural context of interaction.

Contextualisation: Is a concept developed by John Gumperz (1982). It means that speakers signal and listeners interpret how semantic content is to be understood and how each sentence relates to what precedes or follows by the means of social and contextual information in the interaction. According to Gumperz's hypothesis, any utterance can be understood in numerous ways and people make decisions about how to interpret a given utterance based on their definition of what is happening at the time of interaction. Contextualisation cues represent surface features of linguistic form that contributes to the signalling of contextual presuppositions as well as to interactive cooperation. These cues include, for example, prosodic phenomena, dialect, style, code, lexical and syntactic options, formulaic expressions, conversational openings, closings, and sequencing strategies (Gumperz, 1982).

Computer-Mediated Communicative Competence: Or "electronic communicative competence" (Simpson, 2005). The knowledge of the linguistic system, the knowledge of discourse patterns, the knowledge of technology and finally the knowledge of socio-cultural rules of the online communicative environment.

Computer-Mediated Discourse: Is a subfield within computer-mediated communication, focusing on online language and language use (see Herring, 2001).

Community of Practice : (CofP) Is a concept developed by Lave and Wenger (1991) and it refers to an aggregate of people who, united by a common enterprise, develop and share ways of doing things, ways of talking, beliefs, and values. The notion of shared (linguistic) practices is particularly interesting in the study of the language use of a group.

Relational Work: A concept developed by Locher and Watts (2005; 2008; Locher, 2006; Watts, 2003). In their understanding, relational work refers to the interpersonal level of communication (Locher, 2006), and describes the 'work' that individuals invest in negotiating relationships with others (Locher & Watts, 2008, p. 78). They note that relational work "comprises the entire continuum of verbal behaviour from direct, impolite, rude or aggressive interaction through to polite interaction" (Locher & Watts, 2005, p. 11).

Chapter 54
Tracing the Non-Debatable Topic in Online Discussion

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ABSTRACT

This chapter discusses a phenomenon frequently observed in online discussions: "hard-to-discuss" topics. Using Bakhtin's concepts of monologue and dialogue along with his idea of the subject as shaping variable in discourse, the author offers a close discourse analysis highlighting the intertextual dynamics involved in the discussions under scrutiny. The latter are taken from a well established German-American discussion board and center on Moore's film Bowling for Columbine. Bringing a rhetorical perspective to the debate, which seeks a connection between actual discussions and ongoing debates on the (inter) cultural level, this chapter offers insights affecting both theory and practice of participatory online communication: Conceptually, it complicates the position of the participant in online contexts by showing the limits of the much-vaunted concept of interactivity. On a practical level, it informs the work of all those involved in the creation, administration and moderation of online discussion venues.

INTRODUCTION

Participatory web sites such as online discussion boards have become major sites of social practice providing locations of what people commonly refer to as "online communities". As early as 2001, a PEW study found that almost 80% of Internet users in America stayed in contact with at least one online group. Ironically, as more and more people became part of these groups, the initial euphoria over the promise of the Internet as a new civic arena has yielded to less exalted views. In fact, widespread occurrence of "unruly" behavior, often combined with a tendency to seek sameness and close off views that are different from one's own, seem to push the much-vaunted ideas of free interactivity and participation to a limit. This becomes not least obvious in the catalogue of terms practitioners have

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coined over the years to categorize oppositional behavior and "unwanted" visitors (Doctorow, 2007).

In light of this problem, many people's hopes lie in the development of technology that can help fix human error. In fact, scholars have already pointed to the alchemical solution to the problem, an "Architecture" that automatically squeezes discussants' contributions into the right form (Wright and Street, 2007). Considerations of this kind, however, seem to disregard the unpredictability involved in all language use, online as well as offline. Certainly, technology connects millions in providing channels of information and formats for communication. What technology fails to communicate, are the ways in which people are rooted in specific cultural contexts.

In effect, new media technology provides gaps for people to fill by means of using symbols in meaningful ways. Obviously, the ways in which these gaps can be filled are manifold and the resulting exchanges vary to a considerable degree. A cursory look at online discussion boards suffices to reveal a certain inconsistency when it comes to the ways in which discussions evolve. On the one hand, there are discussions in which participants seem to embrace a topic, unfold its various aspects and, thus, engage in debates involving many different perspectives. On the other hand, there are discussions that never gain momentum. Instead, participants seem to be stuck in fights over the legitimacy of the topic as such. This chapter provides a closer look at discussions of the second type in order to find out why –in the context of a specific discussion board- some topics seem to fare worse than others.

BACKGROUND

Extant studies in rhetoric and communication seem to identify two critical factors when it comes to communicative problems or failure in participatory online environments: the computer-mediated context and the presence of differential power constellations. To begin with, some problems are ascribed primarily to participants' location within a highly mediated context and its emerging conventions, which brings about behaviors that differ from those displayed in traditional face-to-face situations. Specifically, studies have pointed to the relationship between participants' relative anonymity and a less inhibited, more aggressive way of behaving (Lea et al., 1992; McLaughlin et al., 1995; Millard, 1997; Gurak, 2000).

The second factor, unequal distribution of power, comes into play when a certain group of participants seems to enjoy a privileged position, for example, when established group members take the liberty of behaving rudely towards new members. Gurak (1997; 2002) writes that in the context of online groups "outsiders are regularly flamed until they have come to understand and assimilate the community ethos", which serves as "the basis for what information other online participants will accept and believe" (2002, p.15). Along the same lines, Honeycutt (2005) found that some groups use hazing rituals similar to those practiced in fraternities and sororities in order to discipline new members. Similarly, Tepper (1997) describes the phenomenon of trolling, a "game that all those who know the rules can play against those who do not" (40). Whereas the early Usenet group examined by Tepper incorporated trolling as an accepted practice of "enforcing community standards and of increasing community cohesion", more recent uses of the term tend to see trolling as a constant threat to the existence of online groups (Doctorow 2007).

Thus, focusing either on the implications of the medium itself or on specific groups of perpetrators, most studies seem to neglect the concrete situations that trigger certain behaviors. In particular, they do not establish a connection between disruptive behavior and the implications of a given topic. Yet, the shaping role of a topic is often pinpointed by practitioners when relating their experiences with online groups. For example, Rheingold characterizes his experiences on the WELL as both helpful ("an aid, a comfort, and an inspiration") and frustrating ("an endless, ugly, long-simmering family brawl") (1993, p.9). Rheingold's last statement, in particular, suggests the presence of diverging perspectives and a resulting impasse with regard to specific topics.

Of course, topics also play a major role when it comes to intervention, for example, when participants are reminded to stay "on topic". A survey among moderators in e-learning environments indicated that "keeping a conversation on topic", along with "preventing harmful attacks", is considered a primary cause when it comes to intervention (Berge and Collins, 2000). Finally, the potential impact of topics on discussions is an important issue when it comes to design. For example, in a recent handbook on how to create and manage discussion boards, long-time board manager and author O'Keefe strongly advises future board owners to compartmentalize "politics, religion and other very controversial discussions" in a separate space or to leave them out altogether. He sees this as a preventive measure to avoid major disputes causing considerable work for administrators and moderators (2008, p.227).

Interestingly, by advising others to circumnavigate "difficult" topics, O'Keefe points to probably the most important implication of topics: their relationship to what Baym (1995) called "external contexts", entailing, for example, differential exposure to cultural and intercultural struggles, conventions, assumptions and narratives. This relationship to larger, cultural contexts becomes apparent in the perspectives and opinions people express with respect to a certain topic. We will see that in some cases, people's views can differ to such an extent that discussions turn into what Rheingold adequately described as "brawls".

AN INTEGRATED APPROACH TO THE NON-DEBATABLE TOPIC: BAKHTIN AS THEORETICAL AND METHODOLOGICAL LENS

In order to describe and explain situations in which topics defy debate, I suggest looking at these situations from a rhetorical perspective, more specifically, through the lens of Bakhtin. Indeed, studying the dynamics of participatory communication situations requires a theoretical and methodological approach that acknowledges the existence of a plurality of voices and perspectives as well as possible consequences these constellations might have on exchanges. In these terms, a Bakhtinian perspective is compelling because a) it allows situating discussions in a dynamic field of tension between dialogic and monologic forces, b) it helps highlight the relationship between certain dynamic patterns and a specific topic of discussion and c) it helps demonstrate the intertextual relativity of contributions regarding a certain topic.

As an integrated approach to explain impasse situations in online discussions, the proposed way of proceeding pursues two principal goals: First, in keeping with Bakhtin's postulate that all discourse is uniquely authored and situated, it attempts to provide a microscopic view of the dynamics of a debate. Second, it seeks to explore the ways in which a dynamic pattern is intertextually related to and informed by cultural and intercultural issues at large. To provide some background, I will briefly discuss Bakhtin's concepts of "dialogue", "monologue" and the "utterance", before explaining how these concepts can serve as foundational principles in the analysis of online discussion threads.

Monologue and Dialogue as Antipodal Forces in Discourse

The following definitions of monologue and dialogue as antipodal forces in discourse are based on Bakhtin's description of the two phenomena in *Problems of Dostoevsky's Poetics* (1994). In keeping with Bakhtin, I characterize dialogue as an ideally endless, open and mutually enriching exchange including a multiplicity of co-existing voices that represent people's unique perspectives on an issue at hand. Ideally, open dialogue leads to new questions and responses as the exchange evolves. All speakers acknowledge the limits of their own, uniquely situated perspective while at the same time respecting the uniquely situated perspectives of others. In this way, a generalizing, systematizing ("monologic") view from above cannot develop. Instead, exchanges prevail that can be characterized as an ongoing "testing, contesting, and creating [of] ideas" (Zappen, 2004, p.12). Bakhtin found precisely this open and non-systematic dialogue of 'voices' in Dostoevsky's "polyphonic" novels. As Bakhtin points out, Dostoevsky "brought together ideas and worldviews, which in real life were absolutely estranged and deaf to one another, and forced them to quarrel". The result of these staged dialogic struggles was an anticipation of "future dialogic encounters between ideas which in his time were still dissociated" (1984, p.91).

In contrast, Bakhtin characterizes monologue as a counter-force to dialogue, which opposes the openness and inclusiveness of the latter in that it closes, narrows down or deadens a dialogic process in one way or another. With regard to the novel, Bakhtin writes, "A monologic artistic world does not recognize someone else's thought, someone else's idea, as an object of representation" (p.79). Indicating that monologue creates binary thinking patterns, he continues, "In the monologic world *tertium non datur*: a thought is either affirmed or repudiated; otherwise it simply ceases to be a fully valid thought" (p.80). Essentially, this entails that monologic thinking appropriates other people's discourse and encapsulates it into abstract contexts. In other words, a person's unique perspective is swallowed by another one's, which turns the former into the lifeless object of categorization and generalization. For this reason, Bakhtin characterizes monologue as "finalized" discourse, as "words that expect no answer" (p.63).

In discursive practice, the tensions between monologue and dialogue are omnipresent. This becomes most apparent in Bakhtin's analyses of spoken discourse in Dostoevsky's novels. For example, Bakhtin points to a variety of situations in which Dostoevsky's characters defy generalization and categorization. In other words, they attempt to dissuade others from making finalized statements about them and the world. By contrast, one potentially successful means to keep the dialogic channels open is personalization, in Bakhtin's words, the merging of "discourse about the world (…) with confessional discourse about oneself" (p.78). This fusion of discourses creates a unique perspective that only one person can inhabit. Precisely this makes it difficult for others to capture. Bakhtin contrasts personalized statements with cases in which "the idea is merely placed in his [the hero's] mouth, but it could with equal success be placed in the mouth of any other character" (p.79). Essentially, this entails that a person reiterates pre-existing concepts without establishing a recognizable idiosyncratic relationship between her and these concepts. In short, she becomes the carrier of monologue.

The Utterance as Unique and Intertextual Speech Unit

Countering major structuralist paradigms, Bakhtin posits the utterance as a "real unit of speech communication" (1986, p.67), which is marked as a "whole" by a real beginning and end: the "change of speaking subjects" (p.71). Positioning a speaker within a given linguistic environment, utterances attain meaning in reference to extant discourse. This entails that speakers make choices, for example, in terms of genre and style, depending on given contexts. Therefore, utterances are singular manifestations of human expression and as such tied to a specific speaker/ author and his or her location.

On the other hand, utterances are always intertextually determined because speakers fall back on discursive materials, styles and genres others have used before them. Thus, utterances do not only respond to an immediately given situation. Moreover, they pick up and establish relationships to discourses that have been circulating in certain cultural contexts. This means, an utterance will always "brush up against thousands of living dialogic threads, woven by socio-ideological consciousness around the given object of an utterance" (2004, p.276). Consequently, every single utterance made by a speaker responds to and shapes extant tensions between monologic and dialogic forces.

STUDYING MONOLOGUE AND DIALOGUE AND ITS INTERTEXTUAL IMPLICATIONS IN ONLINE DISCOURSE

The following case study is conducted by means of a close discourse analysis taking into account, first, the discursive dynamics of the thread, located in a field of tension between monologue and dialogue; and second, the implications of intertextual relationships between actual utterances and discourses that circulate on a superordinate, cultural level. Accordingly, discussions will be analyzed in two steps:

In a first step, I identify monologic and dialogic tendencies in order to describe the discursive dynamics of a discussion. Following Bakhtin, I consider monologue and dialogue as omnipresent forces whose configuration varies depending on a given communicative situation. To identify monologic behavior in context, the following criteria will be used: 1) Participants' attempts to exclude or deny contesting views in order to solidify their own, for example, by making generalizing statements, by stereotyping, or by ridiculing others' comments and opinions; 2) Participants' demonstrated unwillingness or opposition to discuss a certain topic 3) A general decrease in participating voices as a result of discursive action (defamation, flaming, frustration), or as a result of technical intervention by administrator or moderators, for example, when threads are moved to a different forum that imposes writing limitations on some participants; 4) An overall development of a binary situation forcing people to either agree or disagree on a specific viewpoint with regard to the topic in question; this usually goes along with a decrease in perspective differentiation and detail.

By contrast, the following list reflects dialogic behavior: 1) Participants' demonstrated interest in and appreciation of exchanges on a specific topic, often combined with encouraging others to add their points of view; 2) A tendency in participants' contributions to personalize their point of view; 3) Participants' attempts to refute generalizing and stereotyping statements; 4. Signs pointing to participants' valuation of the way in which a discussion unfolds, for example, contributions praising the richness or educational value of a debate.

Having identified the dynamics of a discussion, I proceed to discuss the intertextual relationships that motivate the specific course of a debate. To this end, I investigate how people's utterances are motivated by superordinate discourses circulating on the cultural and intercultural level.

THE POWER OF MONOLOGUE: DISCUSSIONS ON MICHAEL MOORE'S *BOWLING FOR COLUMBINE*

In the following, I analyze three discussion threads dealing with Moore's 2002 film *Bowling for Columbine*. All discussions were posted to www.auswanderer-forum.com, a well- established German-American online discussion board, which in February of 2009 fused with another board to become www.amerika-forum.de. Launched in July of 2001 by Christoph Puetz, auswanderer-forum targeted German immigrants to the United States as well as Germans with an interest in immigrating at some point in their life. When the board merged with amerika-forum, the website's design changed and Puetz discontinued his work as its administrator. However, the comprehensive archive of discussions the website agglomerated over the years is still publicly accessible.

THE DISCUSSIONS IN CONTEXT

The three discussions under investigation date back to the years 2002-2004. They took place at intervals of approximately four months. Since the debates took place in different subsections of the board, it can be assumed that they are to some extent representative of how board members responded to the topic in question and others' perspectives on it. Focusing on the same topic, the debates constitute a discrete unit. The latter as well as their manageability in terms of length made them ideal examples for this investigation. In addition, the discussions feature a compelling subject matter entering the intercultural context between Germany and the United States at a time when relations between the two countries were not at their best.

With the Columbine high school shootings as a backdrop, Moore's documentary explores the problem of gun-related violence in the United States. After winning several awards in the US and abroad, the film opened in US theaters on October 11, 2002. This coincided with the Washington, DC sniper attacks, which would last until October 24. In Germany, the film premiered about six weeks later, on November 21. Already well known for his book *Stupid White Men*, published in Germany in early 2002, Moore managed to score another success with *Bowling for Columbine* gaining him an immense popularity with the German public. In this regard, Moore had succeeded in winning over a German public that fervently opposed the US administration's plan to invade Iraq.

To account for intertextual relations between forum debates and ongoing historic developments, I discuss the three discussions on Moore's documentary in a consecutive manner. Moreover, in keeping with Bakhtin's idea of the utterance as unique manifestation of human expression within an intertextual context, I used complete contributions in context whenever possible. However, the limited scope of this chapter made it necessary to summarize in some places and highlight selected excerpts of postings in others. All postings quoted in this work represent English translations from the original German contributions. In order to secure privacy, I replace discussion participants' login names with two capital letters followed by the post number.

The First Discussion: A Contested Debate

The first discussion (October 28 to November 16, 2002) was posted to one of the most popular and inclusive subsections of auswanderer-forum: "USA Lounge". The debate features six posters who contributed 20 posts to the discussion. Most if not all discussants seem to be male. In addition, all participants indicate that they live in the United States, which seems credible because the complete discussion takes place before Moore's film was released in Germany. The thread starts with someone recommending Moore's documentary. Soon, however, the discussion seems to go astray:

JS01: *Very recommendable. http://us.imdb.com/Title?0310793*

MB02: *Thanks for the tip. Well, probably too sophisticated for the average 24-plex, but it's on in the Twin Cities.*

MB03: *And here's (...) a whimsical, but very informative article on a gun show in Oklahoma. [link to article] (...)*

KH04: *Would be great if they had a gun show like that here in Arkansas, because Tulsa is a bit of a long drive – I absolutely need two more guns, one of them a 12 gage shotgun. Don't need an assault rifle or machine gun for now. But a grenade launcher would certainly be great for the fireworks on New Year's Eve.*

CP05: *lol – coming from Germany, this kind of article is always biased. (...) Not a surprise that Anti-Americanism in Germany never dies.*

PS: Columbine is not far from where I live (...) The guns were acquired illegally and that can happen anywhere – even in Germany with its strict gun laws.

The discussion continues with MB06 contesting CP05's statement by saying that the German press cannot be held responsible for the high number of gun-related killings in the US. This triggers a debate over whether or not it is justified for foreign media to report about other countries' domestic issues and, if yes, how they should go about doing this. In this context, MB10 points out that having an outside point of view can be very enriching. By contrast, CP11 points to the danger of stereotyping. Halfway into the discussion, MB12 quotes the complete version of an interview that German News Magazine *Spiegel Online* conducted with Michael Moore. Introducing the interview, MB adds in brackets, "Attention: Not for people who don't want to read critical stuff on the US." Two more discussants enter the debate expressing their skepticism with regard to Moore's statements on intercultural differences between Germany and the United States. Interestingly, the thread ends with five contributions shared between JE and MB, and characterized by a very personal tone. Writing that watching the film will clarify much of what Moore is saying in the interview, JE17 repeats his initial recommendation (which he does twice during the discussion). The thread ends with MB18 sharing his personal impressions of the film that he had watched in the mean time.

Dynamics

Looking at the monologic and dialogic elements in this thread, we find a dichotomous situation. On the one hand, there are posters JE and MB sharing an obvious interest in the film. In fact, their behavior shows a number of dialogic traits. First, both try to bring additional perspectives to the discussion: To begin with, this shows in their effort to gather and post additional information related to both the film's topic and its director. Moreover, JE's repeated attempt to encourage people to watch the film implies that he is interested in knowing how people feel about it. In addition, when contesting CP's statements MB points to the value of having a view from the outside. Second, both JE and MB give personalized statements on how they feel about the film.

On the other hand, there are monologic elements that seem to be counter-productive with respect to the open and inclusive behavior shown by JE and MB. Both KH and CP make ironic statements on the film's gun theme and the ways in which the German press covers it. Thus, they seem to ridicule and diminish the importance of the issue put forward in the debate. Except for CP's remark that Columbine is not far away from where he lives and that the weapons involved in the shootings were acquired illegally, KH and CP make no reference to the film. By contrast, their contributions show that in their opinion the topic proposed by JE - and embraced by MB - is not even worth discussing.

Consequently, in terms of the dynamics displayed in this thread, we are not dealing with two contesting viewpoints relating to the same topic in question. In effect, we are facing the more general question of whether or not a topic is worth discussing at all within the given limits of a specific forum. What makes this question even more relevant is the fact that the administrator himself acted as a major monologic force in the discussion. Incidentally, both JE and MB discontinued posting to the board in 2003. CP and KH have remained active members.

Intertextual Implications

By the time JE started his thread, he was most probably the only one among the contributors who had seen Moore's film. This, however, did not keep posters from contributing to the discussion. What attracted participants to this thread was probably the main theme, gun violence, put forward in the film as well as in the German newspaper article on the Tulsa gun show referred to by MB in his second contribution. Incidentally, this article of November 4, 2002 (Waldherr) also features cross-references to statements by Moore on violence in American culture. In addition, the article mentions the sniper attacks afflicting the Washington area until four days before JE started the thread.

The impasse the discussion reaches at some point shows that discussants disagree on more than just the film and its topic. For example, MB and JE's seem to appreciate the critical stance the film takes with respect to gun violence and related issues. To begin with, this concurrence in perspective becomes clear in the friendly tone they use when responding to each other's contributions. Moreover, it shows in their choice of texts brought to the discussion. For example, when MB posts the link to the German newspaper article he probably anticipates JE's interest in the text. Finally, the fact that MB ends up watching the film proves that his interest in the matter was serious.

By contrast, none of the other posters displays interest in watching the film. Instead, they seem to latch on to another, rather complex aspect of gun violence in the US: its exploitation as intercultural difference to promulgate anti-American sentiment among the German public. In this regard, KH's exaggerated comments on purchasing weapons can be read as a parodist attempt to affirm Germans' ideas about the omnipresence of weapons in American daily life. More explicit in his statements, CP condemns the bias displayed by German media when it comes to US-related themes. Eventually, what KH and CP suggest in their postings is that the problem of gun violence is a media construct rather than a real problem. Evidently, this supercedes the discussion of a film that in their view was made to perpetuate a myth.

The Second Discussion: A Disrupted Debate

The second discussion on *Bowling for Columbine* is located in a section where people write about why they left or intend to leave Germany in order to come and live in the United States. The thread contains 71 contributions posted by 20 participants between March 2 and April 24, 2003. Demographically, the major differences between the first discussion and this one are: Half of participants indicate that they are located in Germany; at least seven of the contributors are female. Seven people indicate that they saw the film. By the time the thread starts, Moore's film had been showing in Germany for more than three months. In addition, the major part of the discussion takes place just before the US-led invasion of Iraq on March 20.

SS01*: Hi, I've watched Bowling for Columbine now and I have to say that it shows a very different side of America… and that it's kind of violent. I would be interested in knowing what you people think of it, in case you have seen the film… Thanks.*

AO02*: Hello! I've also seen the film. However, I think it shows a different side of people and not a different side of America. There have been many cases where people have run amok in Germany and other countries, too. Sure, the number of inci-*

dences is higher in the US than in other countries (even though in Canada many people own guns, too, or Germans have a violent history). The only explanation left was the immense fear caused by the US media and their focus on crime. But only those who already live in the country of our dreams can tell if this is really the case… (...)

LM03*: I really liked the film. AO mentioned the media-driven fear… and there is certainly some truth to that. By the way, what I found interesting was that my husband did not understand why the (German) audience expressed their disbelief at times. For example, I found the idea that anyone can buy gun ammunition at Wal-Mart pretty sick whereas to him this was just the normal thing to do. This is where differences in attitude become obvious. (...)*

CL04*: The film was made by this lazy, insolent Michel Moore who is against everything.*

The discussion then goes off-topic until, several days later, SS09 writes a comment clarifying her motivations for starting the thread: She has difficulties harmonizing the information gained from Moore's documentary with her plans to come and live in the US. Hereupon, LM10 responds that many Americans are in line with Moore, too. KH11 chips in repeating CP's argument of the previous discussion: The problem of gun violence is a product of excessive media coverage. The thread then resumes a more personal and topic-related course, until HA17 makes a lengthy contribution:

HA17: *Why do Germans pounce on to material that bashes the US? Is it the usual envy that makes people harp on bad things? (...) All it takes is an American who thinks green and Germany is enthralled. As if anyone could take at face value what this idiot wants to make us believe- I'm sure he does what he accuses others of doing, that is, perverting the facts, big time. (...) I cannot imagine that immigrants from countries other than Germany are interested in this crap – they would do anything to come and live in the US and accept the country as it is. Only "open-minded" German know-it-alls know everything better, as usual (...)*

This posting triggers various responses in which discussants comment on HA's accusations, for example, by saying that liking Moore's film does not automatically make people Anti-American. Others try to explain what the film is about and recommend that HA watch the film. Finally, WO33 contributes a post referring to HA, in which he expresses his disdain for all those "USA-experts" who simply want to see their prejudices confirmed. He writes, "In a forum full of Germans who are convinced of their absolute cultural supremacy and who don't care what life is really like in the US, you can't win." Concluding, he expresses hope that these "insufferable moralists" never make it abroad. In their responses to WO's comments, posters again advise watching the film. In addition, they respond to WO's accusations by giving reasons why they find the film worth watching and discussing. In particular, two posters point to the fact that the film moved them as mothers. The discussion then goes off-topic, discontinues for a while, and resumes about a month later. However, the focus has now shifted to those elements in Moore's film that were allegedly fake.

Dynamics

Similar to the first discussion, this debate confronts us with a situation that can be characterized as that of a conversation manqué. Again, we face a dichotomy of dialogic and monologic forces. This time, however, the dialogic efforts made by participants are eventually frustrated or destroyed as monologic tendencies gain the upper hand. Interestingly, this occurred even though the majority of posters seemed to represent the dialogic side.

In addition, both sides included participants that posted to the website on a regular basis. Compared to the first discussion, this debate features a bigger contrast between monologic and dialogic forces. This may be due to the greater number of contributors and postings. Another reason for this could be the strong presence of participants from Germany, in particular, since the two major disruptive comments attack Germans in general and the conclusions they allegedly draw from Moore's work.

Indeed, the first half of the thread displays considerable dialogic activity as participants offer a large array of responses to the film. Most of these responses display discussants as distinctive first-person narrators offering a personalized perspective of how Moore's documentary affected them. Many contributions contain references to personal experience, for example, when LM talks about her husband's response to the film. Others write from the perspective of the mother or the potential immigrant trying to conciliate a so far positive image of the US with what Moore puts forward in his documentary. Interestingly, these posters retain their dialogic attitude even when HA launches his verbal attack. However, after HA's statement, their discussion is no longer focused on the topic of their interest. Captured by HA's statement, participants are now preoccupied with contesting HA's accusations and generalizations. Finally, after WO's openly offensive and discrediting statement, which seems to fit into the Bakhtinian category of "words that expect no answer" (1984, p.63), participants seem to give up.

Intertextual Implications

With the exception of the film itself, participants in this discussion do not explicitly refer to sources outside the forum. Since the major disruptive forces in this thread, HA and WO, seem to be unfamiliar with the film's contents, we need to look closer at what motivates their rather ferocious contributions.

Similar to CP's comments in the first discussion, HA and WO are not interested in discussing the film. Rather, they make evaluating statements about the ways in which participants discuss. Again, the question seems to emerge whether or not a critical perspective on issues affecting other cultures is justified. In this respect, both HA and WO discredit not only what they consider a typical German perspective, but also those who represent and embody it. While HA remains very general when it comes to the target of his accusations ("Germans"), WO insults his fellow discussants by denying them their ability to make differentiated statements on American culture (even though many of them seem to live in the US).

Clearly, both posters' generalizing statements are informed by experiences and impressions predating this debate, in particular, because both postings attribute permanent characteristics to Germans and their ways of analyzing things. This means, both posters see the discussion as an example of certain ways of behaving, which they label as typically German. Interestingly, HA seems to recognize precisely this behavior in Moore's way of bashing his own country. In addition, we need to keep in mind that this discussion takes place shortly before the US-led invasion of Iraq, which had met with strong opposition in Germany and other European countries. For this reason, HA's and WO's statements, and their ferocity in particular, may be triggered by the general deterioration of German-American relations at that time underscored by a heavily biased media coverage on both sides.

The Third Discussion: An Impossible Debate

The third discussion on Moore's film (August 18, 2003 to March 16, 2004) contains 34 contributions by 22 posters. Six posters took part in the previous discussion, too, among them HA and KH. I presume that the discussion was originally posted to the "USA Lounge" subsection of the board. However, the thread was moved to the political forum on August 19, the day after it was initiated. The vast majority of posters seem to be male. Similar to the second discussion, this thread starts with a poster signaling interest in discussing Moore's film. Specifically, SH01 seems to be interested in clarifying comments on certain scenes in Moore's film. Here are the first few postings:

SH01*: (...) I saw Bowling for Columbine at the weekend and I would be interested in knowing how you feel about the film.*

I find it hard to believe that some of the things are actually true, e.g. that you receive a gun as a gift if you open a bank account ??? Why blame Marilyn Manson for such a crime, there sure are other bands? And the massive difference between Canada [and the United States] etc.

CL02*: Check out the search function. We already discussed this topic in detail. The difference between the US and Canada, I don't understand it either.*

HA03*: (...) Michael Moore manipulates his audience with faked and decontextualized numbers and interviews taken out of their context, and in America, everyone knows this! Nobody takes his assertions at face value there. Only in Germany, people are naive enough to think that his propaganda is 100% true!*

Pointing to Moore's success in the US, CU04 contests HA's statement. Thereafter, the discussion takes an interesting turn, when DA05 writes: "True, we've had this before. Nevertheless, it's not worth referring to it. Many in this forum (…) feel offended by Michael Moore. You will get few answers to your questions, but plenty of baiting against Moore (…) and Germans." A little later, PC10 announces his retreat from the board stating that the "image of Germans evoked by this group is appalling". He concludes that there are better places for discussion on the Internet. The following contributions all focus on the board and its intercultural stance. For example, SB11 compares the board to an "island" in a sea of (German) Anti-Americanism. The poster also makes derogatory remarks about Moore and those buying into his "propaganda". Similarly, DT14 explains at length that her rapport to Germany is not an amiable one. Finally, she advises those holding differing views to frequent other discussion venues. Tying in with her statement, WO15 suggests that people use "the logout button (…) in the upper right corner." Thereafter, the thread is moved to the political subsection of the board where writing restrictions apply. After the shift, the exchange becomes more sporadic focusing mainly on the discussion of texts that question the veracity of Moore's claims.

Dynamics

With this discussion, a stage is reached where an inclusive debate on Moore's film has become utopian. Overall, the debate is characterized by a steady decrease in perspectives culminating in the thread's shift to a different forum where certain restrictions apply. Participants now actively seek to shut down voices, for example, by advising people with oppositional views to leave the board and go someplace else. Some participants openly concede defeat. In addition, initial responses suggest that participants already formed their opinions with regard to the topic and that there is no further need for discussion.

Countering the monologic situation, some participants challenge the board's general bias. This entails that the discussion reaches a meta-level where principal assumptions on the board's stance towards certain issues are clarified. As we have seen, this meta-discussion does not bring about a dialogic opening. Instead, it solidifies extant monologic forces. Interestingly, once the boundaries are reset, the discussion finds back to its original topic, however, with a less inclusive spectrum of perspectives.

Intertextual Implications

In Bakhtinian terms, this thread exemplifies the vehemence in which utterances can "brush" against existing discourse. Indeed, the first few postings suggest that SH's initial posting stirs up a hornets' nest. Incidentally, realizing that she entered an existing conflict, SH later apologizes (SH09). In fact, the conflict apparent in this debate seems to be informed by a general polarization affecting people's attitudes towards the US and Germany respectively. In this regard, a tendency to equate pro-American with anti-German and anti-American with pro-German sentiment becomes apparent, in particular, when the discussion reaches a meta-level and participants are forced either to commit to the predominant monologue or to dismiss it. In this regard, Moore and his film entered the anti-American/pro-German side of the binary, which explains why, in later parts of the thread, discussants focus on texts questioning Moore's claims.

CONCLUSION

In terms of their dynamic patterns, all three discussions are characterized by the existence of strong monologic forces continuously interfering with more dialogic patterns. Specifically, the last two discussions show how monologic tendencies eventually get the upper hand as some participants try and eventually manage to shut off those perspectives they consider as opposing. Intertextually, we witness the emergence of a binary opposition characterized by two mutually exclusive bundles of attitudes. This increasing polarization, informed in part by a political conflict between Germany and the US, forces participants to commit to either the pro-American/ anti-German or pro-German/ Anti-American side. Interestingly, Moore and his documentary seem to fan existing intercultural struggles inside the group because they crisscross precisely the clear-cut lines of the binary.

OUTLOOK AND CONCLUSION

Certainly, the scope of this study is limited because it looks at one of many possible cases in which discussions can evolve. Nevertheless, this close analysis provided insights that can be valuable as a basis or contrasting background to future examinations, for example, of threads dealing with similar topics but stemming from other intercultural contexts. On a more general level, increased analysis of successful and unsuccessful dialogic patterns has the potential to yield knowledge that may influence thematic design, discussion guidelines and intervention schemes in participatory online environments. Reaching out from the thread level to superordinate contexts, the integrated approach used in this study can also help shed light on the existence of dominant discourses within specific online venues. In other words, it can uncover ideological patterns. Finally, in the course of this study, I discovered a number of particularities that I was unable to pursue within the limited scope of this chapter. For example, there were indications that monologic and dialogic behavior is biased in terms of gender.

Overall, my research is supposed to counter conceptions viewing the Internet as a tabula rasa that everyone can use and fill according to their own liking. Even though today's literature on online communication turns everyone a priori into a participant, this present study shows that all participation is limited by its intertextual configurations. In this respect, my study attempts to enrich extant work on what influences, determines and limits the ways in which we talk to each other online.

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KEY TERMS AND DEFINITIONS

Online Discussion Board: A website offering participants to take part in debates on specific themes. Discussion boards commonly require registration.

Forum: A thematic subsection within a discussion board.

Thread: A commonly used format to visualize a discussion on a specific topic as a continuous sequence of numbered contributions.

Topic: Indicates the "name" of a thread, usually chosen by the participant who initiates it.

Posting: A contribution made to a discussion.

Participant: A person participating in online interaction.

Participatory Website: A website offering many-to-many interaction.

Chapter 55
Using CMC in Order to Investigate the Language System

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ABSTRACT

Chats, blogs, mailing lists, personal e-mails or texts that can be found on homepages, in short all kinds of computer-mediated communication, offer a very good opportunity to observe ongoing forms of language change as well as language awareness on the part of the users. The new medium makes it possible to watch the emergence of new rules at the same time as they are being formed, and to observe current processes of linguistic reanalysis by the language users. Observations of this kind are possible on all levels of the language system, with regard to phonetics and the phonological system as well as to morphology, morpho-syntax and syntax. This chapter will give a short résumé of the research that has been done so far in this field and outline the many further possibilities of exploration that have not yet been followed up.

INTRODUCTION

Computer-mediated communication (in the following: CMC), be it in the form of chats, blogs, mailing lists, personal e-mails or texts that are to be found on homepages, offer a tremendous new opportunity to observe language awareness and language change. One might want to object that the language used in CMC is a hybrid of spoken and written varieties (cf. e. g. Ricardo 2009 for an empirical analysis of stylistic variation in CMC), and might therefore be a variety of its own rights. Even though, however, it still has to rely on the grammatical system of the language used and cannot exist independently from it. It is therefore probably most realistic to assume a steady process of interaction and mutual influence between CMC and other forms of written or spoken communication. In this way, CMC will mirror "real life language" as well as "real life language" will mirror CMC.

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being formed, and to observe ongoing processes of linguistic reanalysis by the language users. This opportunity offers itself on all levels of the language system: Phonetics and the phonological system as well as morphology, morpho-syntax and syntax. The following paper will give a résumé on the research that has been done so far in this field and outline the many further possibilities of exploration that have not been followed yet.

PHONETICS AND ORTHOGRAPHY

Phonetics and the underlying phonological system are mirrored in what shall here be called "spontaneous orthography". What is meant thereby is the way of spelling people use under the informal and often temporarily restricted conditions of CMC. Especially in all forms of chat, writing has to be done quickly, generating not only an abundance of abbreviations, but also leading to negligence of spelling rules. The spontaneous orthography that can be observed in these cases offers an inside into the speakers' unconscious knowledge of spelling rules, and into ongoing phonetic and phonological developments as well as into socio- and dialectal varieties (cf. e. g. Burri 2003, Siebenhaar 2003). In the following, two examples shall be given to illustrate (a) phonological awareness and/or ongoing phonological change and (b) unconscious awareness of orthographical rules.

It can be assumed that in most cases, spontaneous spelling mirrors the perception of the sound by the speaker. One most interesting example for this phenomenon is the use of the Pinyin spelling system (cf. Yin 2002 for details of the system) by Chinese internet users. Although native speakers of Mandarin strongly prefer the use of Chinese characters, Pinyin is sometimes used in e-mails or forums in order to avoid technical problems with the Chinese character set. However, most Chinese speakers, although familiar with the spelling system, are not used to writing in Pinyin, since they seldom need in it everyday life. We can therefore safely assume that they are not influenced by any traditional spelling conventions they are used to, or by regularly occurring letter combinations. Instead, they must rely on their perception of the words and spell them, so to speak, from scratch. This seems to be a quite manageable task. Since the correct tone can in most cases be inferred from the context tones are usually not marked. Furthermore, the syllablic structure of modern Chinese is relatively simple, and the number of syllables is very restricted (cf. Duanmu 2000: 51). As a result of these restrictions, only three of the 19 standard Chinese consonants (cf. ibd.: 26) can occur in the coda. They are written -n, -ng and -r respectively. The difference between -n and -ng, i. e. between the the alveolar nasal /n/ and the velar nasal /ŋ/, is phonologically relevant: cf. 宾 *bīn* 'guest' vs. 冰 *bīng* 'ice'. However, not all speakers of the language make this distinction. This can be witnessed by the occurrence of utterances like *wo de bao bao bin le* (instead of *bing le*) ['my baby is sick'] and many other similar cases that can be found with the help of the Chinese search machine www.baidu.com. Obviously, the phonological difference is either not perceived at all or not perceived as relevant by some language users. The sound chosen here is the logical neutralization of /n/ and /ŋ/, since /n/ can occur in onset and coda alike, while /ŋ/ us restricted to the coda and cannot occur in a prevocalic position. It would be most interesting to investigate this phenomenon further in order to see if this neutralization occurs only with certain words, if it is more typical for speakers from one part of the country than another, or if there is an overall phonological change going on.

Spontaneous spelling, on the other hand, might offer us insights not only into the perception of sounds, but into the perception of spelling rules, as well. Writers with years of experience in spelling their mother tongue have an intuitive grasp of the rules they apply, although most likely most of them are not consciously aware of them. A good example in order to investigate this point can be

Table 1.

ch@ttet(3rd pers. sg.)	chattä	cheten
Chät (noun)	chätta	chetta
Chat (noun)	chättä	chette
chat (noun)	chättät (3rd pers. sg.)	chetu
chata	chatte	
chatä	chätte	gechattet (participle)
chäta	chatten	gechatut (participle)
chätä	chätten	gichatter (participle)
chätät (participle)	chätter (noun)	gichattet (participle)
chate	Chatter (noun)	gichattut (participle)
chäte	chattest (2nd pers. sg.)	
chaten	chättet (3rd pers. sg.)	schatto
chäten	chättet (part)	Tchätt
Chater	chattet (2nd pers. sg.)	tschät
chätet (2nd pers. sg.)	chattet (3rd pers. sg.)	tschätä
chatet (participle)	chattet (part)	Tschätt (noun)
chatet (3rd pers. sg.)	chatti (1st pers. sg.)	tschätte
chatisch (2nd pers. sg.)	chattisch (2nd pers. sg.)	Tschätter (noun)
chato	chatto	tschättet (participle)
chätö	chattu	tschetä
Chäts (noun, plural)	chättu	Tschett (noun)
Chatt (noun)	chattut (3rd pers. sg.)	tschettu
Chätt (noun)	chatu	Chett (noun)
Chatt (noun)	chätu	chetta
chatta	chatusch (2nd pers. sg.)	chette
ch@ttet(3rd pers. sg.)	chatut (3rd pers. sg.)	chetu

provided by English verbs that are in the process of being integrated into German. When it comes to spelling them, at first sight the only problem seems to lie in the decision of either using the English or the German spelling system. However, it is not quite as simple as that. The following list of tokens was taken from a corpus of chat log files, all of them representing adaptations of the English words *chat* (N/V) and *chatter* into the local varieties of German:

In this corpus, most of the chatters were using a local dialect with no official spelling rules. They were therefore not bound by any form of traditional spelling and developed a great amount of creativity. This, of course, presents an ideal opportunity to observe not only the phonetic perception of the participants, but also the process of spelling as such. To wit: In general, the strategies used in the case of the English root *chat* can be described as follows:

- The affricate of the onset [tS] can be rendered either by *ch* (English) or by *tsch* (German spelling). *Sch* occurs only once and is therefore difficult to evaluate; we might be dealing with a typing error.
- The nucleus vowel, pronounced [œ] in the original language, in German mostly

rendered as [E] or [e], can be spelled as *a*, *ä* or *e*. In this case, the actual choice might partly depend on the local pronunciation.
- The coda [t] can be rendered as *t* or *tt*. In both languages, the gemination is used to mark the preceding vowel as short. (Hentschel 2008: 328)

This setting leads to 12 possible combinations of the onset, nucleus and coda. However, only 9 of them were realised: Independent of the choice of letter for the vowel, the combination of *tsch* in the onset and a single *t*, only occurred twice – in both cases in combination with a following *ä* (*tschäta, tschetä*). The equally possible infinitive **tschaten* never occurred at all. This offers a most significant insight in the speakers' unconscious knowledge of spelling rules in German (for details, cf. for instance Maas 1992, Eisenberg 2007). The choice of German spelling in the onset led to a significant preference of a geminated *t*, which would indeed be obligatory in such a case in German.

MORPHOLOGY

In many languages, the domains of morphology, morpho-syntax and syntax are heavily intertwined. In many cases, it is therefore not quite easy to separate them. In this chapter, only morphological phenomena in the strict sense of the word shall be dealt with. The concrete examples to be addressed are

- Collective nouns in Serbian
- Originally English verbs in German
- Word boundaries in German and Serbian

COLLECTIVE NOUNS IN SERBIAN

In Serbian, a certain type of collective nouns on *-ad* often appears instead of the regular plural in cases like

dugme 'button' – *dugmad*
prase 'piglet'– *prasad*
tele 'calf' – *telad* etc.

Collective nouns on *-ad* belong to the same declination pattern as feminine nouns ending on consonant: they use *-i* as a formative for case endings. As for nominal agreement, that is adjectives, participles etc., they should by rule be treated as feminine nouns in the singular. In contrast to this, the finite verb is always used in the plural, cf. for instance *crvena su dugmad pritisnuta* 'the red buttons have been pressed **4**) (cf. Mrazović/ Vukadinović 1990: 197f, Stevanović 1989: 182). However, in everyday language, there is a tendency for the plural semantics – which already leads to the plural form of the finite verb – to break through in the grammatical pattern. This "pluralisation" affects the agreeing nominal forms as well as the noun itself. A change of form in the noun itself can be ssen in the following authentic examples:

intervju sa teladima (instead of: *teladi*)**5**
'interview with the calves' (www.forum.vidovdan.org) or
krmača sa prasadima (instead of: *prasadi*)
'a sow with piglets' (www.b92.net/info/komentari)

Here, the plural case ending of the neuter paradigm is used, which is a generalisation of the singular pattern, since forms *dugme*, *prase* or *tele* belong to a class of neuter nouns with stem enlargement. Many speakers seem to find the use of a neuter plural form more acceptable than the "correct" forms, and use it regularly.

The use of a plural agreement pattern with an adjective can be exemplified by the following phrase:

neki link pored zelenih dugmadi (instead of: *zelene*)
'a link besides the green buttons' (www.sk.rs/forum/archive)

Here, the adjective shows the (semantically adequate) plural instead of the (morphologically correct) singular case ending the norm would ask for.

Constructions of this kind are clearly expressions of the speakers' plural conceptions of the words in question. Their semantic features overrule the morphological ones: the nouns are fitted into other declination patterns, and agreement has to express plural (cf. Corbett 2000 for a more detailed explanation of these phenomena). Google findings show this very clearly: There were 521,000 hits for *dugmadima*, 527,000 for *prasadima* and 1,290 for the obviously more rare form *teladima* to witness this perception. The findings show an ongoing process of morphological recategorisation: the collective nouns are treated as irregular nominative plural forms in an otherwise normal neuter paradigm.

PARTICLE VERBS IN GERMAN

In German, there is a class of verbs often called "particle verbs" or "separable verbs". These verbs have a prefix, or at least a prefix-like element, that under certain conditions can be separated from the stem, e. g. *ankommen* 'to arrive' vs. *ich komme an* 'I arrive' (cf. Hentschel/Weydt 2003: 53f.). When a participle is formed, the morpheme -*ge*- is in these cases inserted between the separable element and the stem, e. g. *ankommen: angekommen.* With the example of *ein*-, all of the separable elements in questions can also be used as prepositions.

German and English are closely related languages. If an English verb consists of a verbal stem and a preposition (as in *downsize*, *overthrow*, *undergo* etc.), this structure is often intuitionally transparent to German speakers and perceived in the same way as a German particle verb. This leads to the phenomenon that borrowed English verbs with this structure form participles with inserted -*ge*- like in *downgeloadet* 'downloaded' or *upgedated* 'updated'. The better integrated a verb becomes, the more likely it should be to show these properties. In the case of highly frequent loan words, even the German standard reference dictionary *Duden* lists the forms with insertion as the correct forms (cf. Duden 2006 s. v. *downloaden, updaten*).

So far, there seems to be nothing remarkable about this. However, an empirical study conducted twice with a time difference of three years (2003, and 2006) yielded some quite astonishing results: instead of becoming more and more usual with the growing frequency of the verbs, the participles with inserted -*ge*- became considerably less frequent.

English verbs had not – as one would have expected – become better integrated. They had, on the contrary, after having reached a certain degree of integration, moved further away again from the target language system. Up to this point, there is no explanation for this phenomenon. Obviously, further research is necessary in order to throw light on the processes we are dealing with here. There might have been a change of context, or changes in the user group, or other factors of influence. However, thanks to CMC, for the first time it is possible to observe the process of integration at the same time as it takes place.

WORD BOUNDARIES

Quite often, the deviations in spontaneous writing offer the possibility of insights not only in phonetic and phonological events, but also into the users' reanalysis of word structures. To wit: do the language users perceive something as one entity, i. e. one word, and therefore write it together – or do they perceive it as two (or more) words, and therefore separate it? Instances of reanalysis have been showed before, such as German *wasnfürne* (cf. Hentschel 1998), which stands for the four separate words *was (den)n für (ei)ne* [lit.: 'what then for one']. These for words have only one common function, that is to express the mean-

Table 2. (cf. Hentschel 2008: 344, Table 28)

Summary of all verbs in the study	in 2003	%	in 2006	%	difference between 2003 and 2006
-ge- inserted	71'690	**77%**	1'227'172	**51%**	**–26%**
not inserted	21'667	23%	1'181'460	49%	**+26%**
sum	93'357		2'408'632		**+2480%**

ing 'which' (otherwise expressed in German by *welche*). In this semantic function, the elements lose their individual meaning, and the writer quite correctly mirrored this by merging them all together into one word.

Another typical example for this kind of re-analysis is the German expression *so was* 'something like that'. It stands short for *so etwas* ['such something'] and is clearly made up of two words. However, again they function together to create a new meaning different from the original ones. The users seem to be predominantly convinced that this fact should be mirrored by the spelling: *sowas* gets 11,300,000 hits with Google, while the separated version *so was* gets only 6,460,000.**6** Other examples of the same kind are *sonstwer* instead of *sonst wer* 'somebody else' (32'600 merged hits as opposed to 46'400 separated ones) or *nochwas* instead of *noch was* 'one more thing' (321'000 hits for the merged, 3'200'000 for the separated version). In the case of *nochmal* vs. *noch mal* (14'300'000 vs. 4'520'000 hits), the overwhelming majority of merged uses has even led the standard orthographic lexicon *Duden* (2006, s. v. *noch mal*) to accepting the merged version as the "ugs." (short for *umgangssprachlich* 'colloquiual' or 'non-standard') variety.

The third example here shall be taken from Serbian. In this language, negation is normally expressed by the unstressed syllable *ne* before the verb, as in *ne volim* 'I don't like' [lit.: 'not love-1st person singular present']. In the case of *biti* 'to be', *imati* 'to have' and *hteti* 'to want' the negator merges with the verb, producing the forms *nisam* 'I am not' (cf. *jesam/sam* 'I am'), *nemam* 'I have not' (cf. *imam* 'I have'), and *neću* 'I will not' (cf. *hoću/ću* 'I will'). In the case of all other verbs, the negator stays separate. However, merged forms like *nevolim* 'I don't like' can be observed showing an ongoing process of merging the negation with the main verb of any phrase. The form *nevolim*, first recorded as a CMC-typical phenomenon by Hentschel (1989), earned 378,000 Google hits as opposed to 3,350,000 for *ne volim* (16.04.2009). Although this are only 10% of all forms together, they still document an underlying tendency towards merging the negator with the verb.

In all these cases, the "erroneous" merging of to usually separate morphemes shows nothing less than the users' language perception and the emergence of new lexical items.

MORPHOSYNTAX AND SYNTAX

One of the few cases where it has been assumed that CMC "created" a new form in the paradigm is the German "inflective" (a term that has been coined by Teuber 1998). Inflectives are pure verb stems without any inflection markers. However, the forms as such are much older. They occur as early as in the 19th century, an can be found in the works of Wilhelm Busch (1832–1908)1, e. g.: *Knarr! Da öffnet sich die Tür* ('Creek! the door opens'; *Tobias Knopp*) or *Da geht es klirr! und klipp! und klapp!!* ('It's going clang! and click! and clack!'; *Die Fromme Helene*). Although this kind of verbal form therefore cannot be attributed to CMC, the medium still has led to innovations. One only recently developed phenomenon is the generalization of such forms to all kinds of verbs, including those that had been supposed to be excluded from the emerging paradigm. The second new phenomenon is the growing tendency to incorporate objects and adjuncts.

Authors like Teuber (1998: 20) assumed that there were semantic and morphological boundaries for inflectives. He suggested agentivity as a necessary semantic precondition leading to the unacceptability of forms like **schnei* ('snowing'), whereas morphological reasons were the supposed constraints for verbs on *-ig-* like **beleidig*. But generalizations transgressing the assumed semantic boundaries are well documented, cf. findings like **hunger hab** ('being hungry', Pankow 2003: 105) or **geruehrtsei** ('being touched', Hentschel 1998). These examples also already show incorporation, the second new development. However, this phenomenon can be attested even more stunningly by examples like **schweißvonderstirnwisch** ('mopping sweat from one's brow', lit.: 'sweat-off-the-brow-mop'), **mitdenfüßennachderfernbedienungfisch** ('fishing for the remote control with one's feet', lit.: 'with-the-feet-for-the-remote-fish'), or **ultimativentzücktseiunddahinschmelz** ('being ultimatively delighted and melting away', lit.: 'ultimatively-delighted-be-and-away-melt'; all three examples are taken from Pankow 2003: 104f.). These are really and duly new forms that owe their existence to CMC. Neither had the same kind of complex construction earlier been part of the spoken language, nor had it been used in written varieties in this way. What is more, they can be taken as evidence for the users' unconscious perception of the relations between verb and arguments.

Another example illustrating the emergence of new morpho-syntactic relations is the use of case following prepositions in German. Until quite recently, it had been generally assumed that the genitive is being reduced and gradually replaced by other cases, to be used only in stylistically marked context (cf. Duden 2005: 614). Authors like Di Meola (2000), however, have pointed out that actual language use might on the contrary show a sort of rebirth of the case. He concludes that it is being used more often than assumed in order to mark the transgression of a form from one word class to another. This would account for the use of genitive after prepositions like *dank*, *trotz*, *samt*, *binnen*, all of them recently derived from other word classes (cf. ibd.: 107f.). However, there is more to be discovered: prepositions like *außer, neben* or *gemäß,* that have been well established for years and cannot easily be traced back to their origins, also show a growing tendency towards genitive case. There were 20'300 hits for „*außer des*" (the search was conducted with quotation marks), e. g. *außer des Hauses* ('outside of the house'), *außer des Unterrichts* ('outside classes'); 38'700 hits for „*neben des*", e. g. *neben des Studiums* ('apart from the studies'), and as many as 212'000 hits for „*gemäß des*", e. g. *gemäß des Beschlusses* ('according to the resolution'; all data retrieved on Google 2009-03-27). These are stunning results. Instead of becoming more and more rare, the case begins to show in constructions were it is, at least in view of normative grammar, erroneous. It certainly looks worth while to keep an eye on these developments.

The expression of syntactic relations within a phrase, to wit the attribution of the roles of subject and predicative noun, is another example of how new morpho-syntactic developments can be traced on the net. In German, the subject noun as well as the predicative are expressed in the nominative case, yielding sentences like *Wenn ich ein Löwe wäre* ('if-NOM I was a lion-NOM') or *Wenn ich du wäre* ('if I-NOM were you-NOM'). However, especially in the case of two pronouns and thereby two equally thematic elements in the respective roles, users seem to feel the need to mark more clearly which is which. This leads to tendency to use the accusative for the predicative noun in order to mark it as unsuitable for the subject role. Such, we get utterances like *Wenn ich dich wäre* ('If I-NOM were you-ACC'). This is of course quite similar to the English tendency towards *If*

I were him instead of *If I were he* (129'000 or 58% hits for *him* compared to 92'500 or 42% for *he,* 2009–06–27). Obviously the users' perception of syntactic relations is very strong, as is their need to express them as clearly as possible. However, apart from the occurrence and the absolute frequency of case markings for predicative pronouns in German, the individual frequencies in the different parts of the language area can also be traced on the internet. While there were 1,7% hits for accusative and 98,3% for nominative in the 'if I were you'-construction on Google for all German pages, there were 36% accusatives and 64% nominatives on Swiss pages (retrieved 2007–02–07, cf. Draye 2009: 44). We can clearly see that the replacement of the case is strongest in the southern part of the language area, possibly even spreading from there to other areas.

Last but not least, it is not only the emergence of new rules and usages that can be traced on the internet, but also the users' thoughts about them, since the phenomena are directly discussed on the net. What we see in these cases is the actual usage as well as a sort of meta-linguistic discourse, led not by linguists, but by the language users themselves. This leads to the possibility to watch the actual usage at the same time as the meta-linguistic awareness of the speakers, and their incertitude when it comes to certain types of constructions. A good example of this phenomenon is the French verb *pallier*. The discussion of whether it should be used with a direct object as in *pallier qc.* or with an indirect one (*pallier à qc.*) can be traced on several internet pages, where users cite grammars like Grevisse and Le Petit Robert in order to find out what should be the correct form. This kind of meta-linguistic discussion might be typical for languages like French, where there is a strong normative authority regulating the language use, but it is by no means restricted to it and can be observed in other languages as well.

CONCLUSION

Although only a short overview could be given here, it should be sufficient to document the fact that CMC is a very valuable source for observing language change. Examples could be named for all levels of the language system: for phonetics and phonology as well as for morphology, morpho-syntax and syntax. The languages used as examples here were Chinese, French, German, and Serbian. However, it goes without saying that any other language to be found on the internet can be observed in the same way. So far, this means of obtaining language data has almost not been used at all. Therefore, one of the aims of this paper is to encourage the utilisation of CMC sources in order to observe and describe language change on the level of the language systems.

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KEY TERMS AND DEFINITIONS

Computer-Mediated Communication (CMC): Communication via chats, blogs, mailing lists, personal e-mails or texts that are to be found on homepages.

Language System: System in the Saussurian sense of the word, set of phonological, morphological and syntactic features of a language.

Language Change: Modification of phonological, morphological and syntactic features of a language.

Morphology: Analysis of word structure.

Orthography: Spelling rules.

Morpho-Syntax: Analysis of categories or linguistic units with both morphological and syntactic properties.

ENDNOTES

1 For the phonetic quality of [r], cf. the discussion in San (2000: 26). In the coda, it is much more common in the Beijing variety of the language than elsewhere. This is due to the fact that the suffix *er*, originally a diminutive suffix, is very wide spread in

the Beijing variety and can be attached to a wide range of words (cf. Li/Thompson 1989: 39f.). In other varieties, -r is very rare and mostly restricted to words like *èr* 'two', *ěr* 'ear', *ér* 'child' etc.

2 There is no doubt whatsoever that *bìng* 'sick' is indeed what is meant, especially since the utterance is followed by *fa shao le* 'has a temperature'.

3 I wish to thank Beat Siebenhaar for entrusting me with the data. For a more complete analysis, see Siebenhaar (2003).

4 Refrain from a song of the rock group *Riblja Čorba* (published on the album *Ujed za dušu*, RTB Beograd, s. a.).

5 This and the two following links were retrieved 2009-01-27.

6 The Google hits quoted in this paragraph were results of searches conducted 2009–04-15.

7 Most of Wilhelm Busch's works (including the two stories cited here) can be found on the internet at the project "Gutenberg", http://gutenberg.spiegel.de. Therefore, no further sources are named here to document the quotations.

8 Most of Wilhelm Busch's works (including the two stories cited here) can be found on the internet at the project "Gutenberg", http://gutenberg.spiegel.de. Therefore, no further sources are named here to document the quotations

9 Discussions of this kind can be found on many pages, often intended to clarify the question of whether or not the construction *pallier à qc.* is acceptable. To give but two examples, one from France, one from Canada: http://grapheus.hautetfort.com/archive/2005/12/13/pallier-une-loi-ou-pallier-a-une-loi.html, http://www.radio-canada.ca/education/francaismicro/description.asp?ID=993&CAT=P&leid=746&lacat=a (2009–06–28).

Chapter 56
Computational and Engineering Issues in Human Computer Interaction Systems for Supporting Communication in African Languages

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ABSTRACT

The computational and engineering issues surrounding the development of computer-mediated communication (CMC) technologies for supporting African language discourse is the focus of this presentation. The thesis of this presentation is that, to obtain acceptable results, services for supporting CMC intended for use in African environment should exploit and implement language technologies developed around African languages and cultures. We discuss the key issues relevant to achieving this as well as the technicalities and strategies for its realisation. The aim of this presentation is to motivate and impel a robust, well articulated, research and development agenda on African language technologies relevant to CMC.

INTRODUCTION

In the past two decades, there has been a consistent growth in the various areas of the technologies for supporting computer-mediated communication (CMC). During that period, a number of human language technologies such as speech recogniser, speech synthesiser and machine translator have been developed and deployed. Theories on, and about, human interaction (Norman, 1986) has also been adapted and used to make these technologies more user friendly. The integration of theories of human interaction and computer communication technologies facilitates the development of a framework within which dialogue and discourse

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between humans can be supported. The ability of this framework to manage communication in a multi-lingual environment is of particular importance to Africa where there are several languages, many of which have more than one dialect (Bernd & Nurse, 2000; Tucker & Shaonova, 2005). Integrating these technologies into mobile devices, such as handheld portable digital assistants, has the potential of reducing the physical barriers inherent in communication over large geographical areas. Although the technologies are yet to reach the level of perfection that could support natural unrestricted communication, their potentials in supporting human dialogue and discourse is enormous. For example, they can be positively exploited in the areas of conflict resolution, commerce and other human interaction activities.

In this chapter we discuss the computational and engineering issues in computer-mediated communication technologies in the context of a framework for supporting discourse in the African environment. The underlying motivation is to provide an exposition that, we hope, will motivate and impel a robust and well articulated research and development agenda on African language technologies. This is with the view to addressing the confounding technological challenges presented by the current digital divide phenomenon as it relates to African languages and cultures. We emphasise the need to exploit the tools and techniques available within the modern computer and communication research and development activities and related language technology initiatives.

In Section 2 we present a brief review of the state of the art in human computer interaction and discuss implications for CMC. In Section 3, we discuss important computational and engineering issues in human computer interaction systems development in the context of the technologies for supporting discourse in African languages. Section 4 presents an overview of implementation issues while Section 5 concludes this chapter.

BACKGROUND

In this section we discuss the state-of-the-art in Human Computer Interaction (HCI) as well as their potentials for supporting communication and discourse in the African environment. Specifically, we look into important research and development issues in the area of human language technologies and initiatives as it relates to CMC as well as their implication for African languages. The aim is to highlight the inherent values of viable communication infrastructure for social engineering. The current and relevant technologies include: Machine Translation (MT), Automatic Speech Recognition (ASR), and Text-to-speech (TTS) synthesis. These technologies have found use in automatic document generation, information storage and retrieval, biometric security systems, spell checkers, grammar checkers, and digital dictionaries.

The adaptation of these technologies in CMC and learning and their potential as a communicating tool across cultural and language barriers have been identified and discussed by Pica *et al*. (1994). The applications of CMC in second language learning have been of particular interest in Asian language research (Cheon, 2003; Gao, 2006). For example, working with Korean language, Cheon (2003) found that learners do engage in appropriate meaning negotiation for their foreign language development through task based synchronous CMC. The majority of works on Asian and other oriental languages CMC addressed issues of application development and the impact of CMC on the local language. The symbiosis between the technology for realising CMC and the linguistic characteristics of target language as well as the salient cultural issues that have critical impact for CMC application are generally not in focus.

We opine that the engineering and computational issues relating to CMC should be discussed within the framework of human computer interaction and research and develop in this regard should take proper account of the multilingual and multicultural nature of the African continent. In the following subsection, we proved brief descriptions of some of the relevant human language technologies that are relevant to CMC in African language context.

Machine Translation (MT)

Converting expression in one language to another has been an interesting area of research. Machine Translation (MT) is the process of converting a piece of text in one natural language to the text of another natural language. A machine for realising this task is called a Machine Translator. Given an expression, e.g. sentence or phrase in a language, the aim in language translation is to produce an equivalent expression in another language, with similar semantic implications. This problem is not trivial because each human language operates its own morphological, syntactic, semantic and pragmatic system. There is usually no one-to-one correspondence between languages in respect of these language elements. This task usually requires that the context of the expression as well as the domain of its usage must agree.

Modern MT systems are computer based and they are able to exploit the memory and processing capability of the modern computer in generating reasonably acceptable translations. The theoretical support for MT systems comes from natural language engineering (NLE).

We define NLE as all activities involved in applying the science of human language to the development of products that meet human needs.

To produce MT systems, the knowledge generated from a scientific study of the processes underlying the expertise of a human translator must be encoded computationally. The development of a MT system, therefore, requires that linguists work with computer scientist and engineers to create software that mimic human translators. Theories are propounded; data collected and models are built culminating in the development of guidelines and methodologies that can be coded as software.

MT systems have been developed for translation between English and most European languages and some Asian languages (SYSTRAN, 2008). Practical MT systems have been found to be very useful in language education and have been shown to improve the productivity of human translators, although they are less than perfect. Automatic translators can also be of great help to information seekers who have to search through large amounts of texts in foreign languages increasing their potential application in CMC discourse.

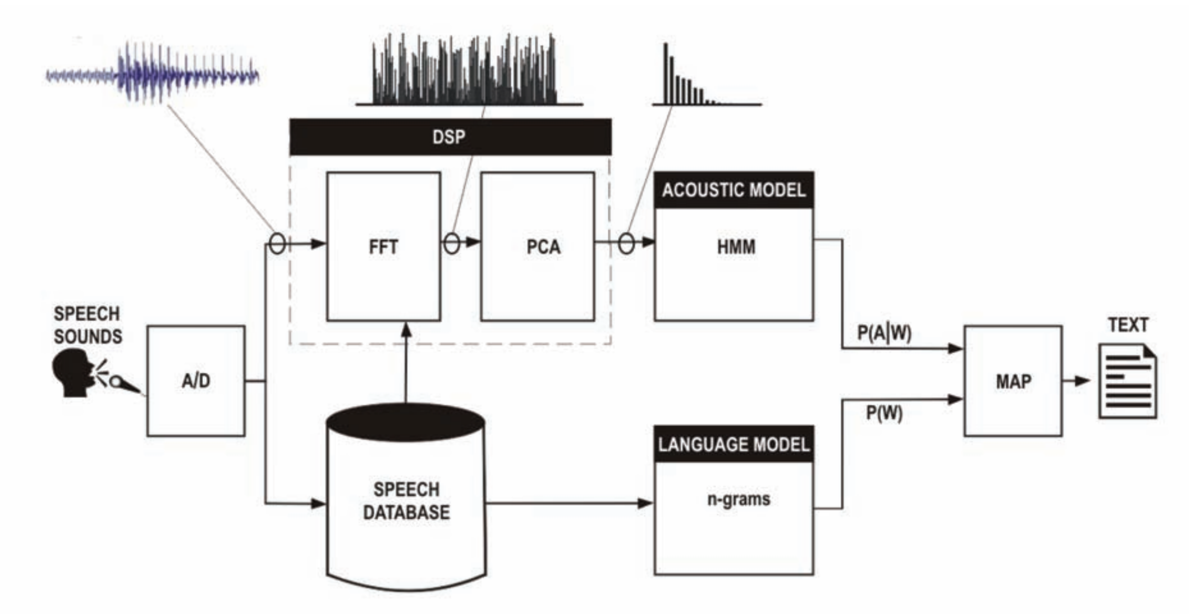
Developing MT technologies for African languages will definitely increase their communication potentials and hence their use as a medium for knowledge sharing which, is crucial to human discourse and hence the preservation of the languages.

Automatic Speech Recognition (ASR) Technology

Automatic speech recognition (ASR) systems are perhaps the most important computer-based speech and language technology for Africa, considering the high levels of illiteracy that subsists in the continent. Automatic speech recognisers convert spoken word into computer actions or other objects such as digital text. This allows a computer actions or processes to be initiated as a consequence of spoken utterance. The automatic speech recognition process can be broken into four main stages: speech signal capture, feature extraction, search and comparison and recognition hypothesis generation.

Figure 1 illustrates the main components of a general ASR system. Analog speech signals are captured through a microphone and converted to digital samples through an analog-digital (A/D) converter. The digitals samples are transformed from the time domain into the frequency domain where the acoustics characteristic of different speech sounds are better distinguished. The dimen-

Figure 1. Illustration of a speech recognizer (Adegbola, 2005)

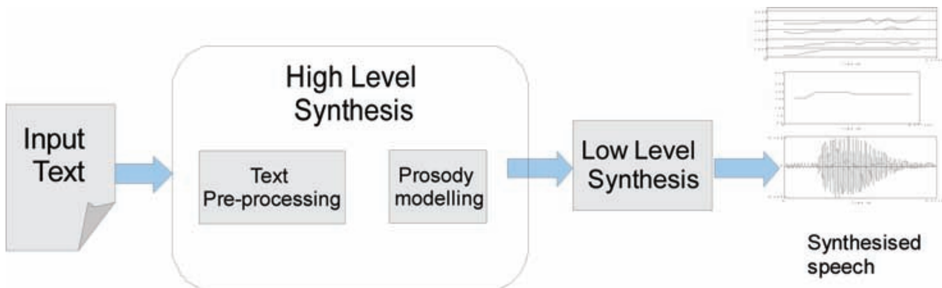


sionality of the frequency domain parameters are reduced by some data reduction techniques such as Principal Component Analysis (PCA). The more compact speech data that results from the data reduction process is then fed into an acoustic model based on the Hidden Markov Model (HMM). The HMM calculates conditional probabilities that match features of the input speech with the features of the speech units in the recogniser lexicon. These conditional probabilities are then combined with prior probabilities of occurrence and co-occurrence of various speech units derived from a statistical language model of the language in question. The combination of the conditional and prior probabilities produce a set of posteriori probabilities, the maximum of which is taken as that of the recognised utterance.

The core of an ASR system developed for one language may be retrained or adapted for other languages, but to achieve high quality ASR, certain language specific features need to be addressed. For example, most of African languages are tone languages in which the pitch of the voice determines the meaning of an expression. In tone languages, a difference in the pitch of the speaker's voice may distinguish one word from another. ASR for such languages demands that the pitch information in the fundamental frequency (F_0) of the speech sounds must be accounted for. Accounting for the pitch information may increase the complexity of the ASR design process, but Adegbola (2005) demonstrated that the heavy semantic load (Akinlabi & Liberman, 2000) carried by tones can be positively used to improve recognition time and accuracy for *Yorùbá* speech. This novel approach to speech recognition utilities information elicited from the tone patterns of an utterance to narrow down likely phoneme candidates that make up the utterance, thereby reducing the number of phonemes that may be considered in the search for the recognised statement.

ASR technology has applications in areas such as security, language education, content development, dictation machines, and speech translation machine. For Africa in particular, the potential of this technology as a tool for the documentation of valuable knowledge presently embedded in predominantly oral traditions in high. ASR also

Figure 2. Speech synthesis system component



has huge potentials for supporting discourse in a multi-lingual and multi-cultural environment such as African.

Speech Synthesis Technology (SST)

Speech synthesis technology (SST) allows the conversion of digitized texts, or related digital objects, into speech-like sounds (Odejobi *et al.*, 2008; Odejobi, 2009). The problem in speech synthesis is different from speech recognition in that the development of speech synthesis technology is heavily dependent on the language. A TTS system developed for one language cannot be used for another language. A typical speech synthesis system comprises a number of processing subsystem which can generally be grouped into two classes: high-level synthesis (HLS) and low level synthesis (LLS) (see Figure 2). The high-level synthesis subsystem converts text or its description into an intermediate form. This intermediate form primarily describes how the text will be pronounced. The processes involved in achieving this include text analysis, text normalization, and grapheme to phoneme conversion. Another component of the HLS subsystem which ensures good quality speech sound is the prosody generation process. The development of the high level synthesis system is language dependent. The low-level system subsystem converts the intermediate form into actual speech sound. It uses digital speech processing technology to achieve this.

A number of projects such as Festival, BOSS and EMBROLA, are dedicated to the development of speech synthesis technology and they have been used to implement TTSs for many European languages (Dutoit 1997). Work on Asian languages such as Mandarin and Cantonese (Shih & Sproat, 1996) and Thai (Narupiyanul, 2005) are already yielding fruitful results. Some work on *Ibibio* (Gibbon, *et al.*, 2006), *Zulu, Swahili* (Ngugi, 2005) and *Yorùbá* (Odejobi, *et al*, 2008) are ongoing but they are mostly in the preliminary stages. Text-to-speech (TTS) synthesis has developed considerably in the past 15 years and it has found number applications in areas such as text reader for the blind and the illiterate as well as language education tools. Successful speech synthesisers are now available and some of them can be used over the internet.

The current research problem in the area of speech synthesis addresses the problem of speech output quality relating to the mechanical sounds generated by modern TTS. This problem is associated with speech prosody which can be putatively defined as having three dimensions: (i) duration, (ii) intonation and (iii) intensity. Odejobi *et. al.,* (2008) have proposed a modular holistic approach to this problem. In that approach, the linguistic, phonetic and acoustic aspects of speech prosody are computationally represented and manipulated within a unified modelling framework. The framework was developed around the relational tree technique (Odejobi, 2009).

Table 1. Human computer interaction technologies relevant to CMC

Technology	Description
Text to speech synthesisers	Converts digital text or other computer initiated command into speech-like sounds
Automatic Speech recognition	Generates computer actions corresponding to human spoken commands
Machine translation	Translate text from one human language to another
Natural language recognition	Determines that a stream of text or audio file corresponds to human language and gives the name of the language.
Natural language interpretation	Generate the semantic implication of a stream of text for a given language.
Automatic text generator	Generates text corresponding to computer action
Intelligent speech annotation	Marks special section of text for the purpose of further processing.
Speech articulation modelling	Research in models of the physical dynamics of the mechanism of human speech organs and how they generate speech.
Haptic interface	In general the word "haptic" refers to the sense of touch (O'Malley & Gupta, 2008; Kortum, 2008). This sense is essentially twofold, including both cutaneous touch and kinesthetic touch. Cutaneous touch refers to the sensation of surface features and tactile perception and is usually conveyed through the skin. Kinesthetic touch sensations, which arise within the muscles and tendons, allow us to interpret where our limbs are in space and in relation to ourselves. Haptic sensation combines both tactile and kinaesthetic sensations.
Automatic brail readers and printer	Reads and automatically generate brail text for the visually impaired persons
Gesture interface	Gestures originate from natural interaction between people (Nielsen *et al.*, 2008). They consist of movements of the body and face as nonverbal communication. This is the inspiration behind using gesture interfaces between humans via machines.

Text Generation and Processing Software

Although word processor are not generally regarded as technologies for supporting computer-mediated communication, their use in typesetting script that are communicated between and among people contribute substantially to modern communication and hence discourse. One of the excuses given for the non-utilisation of African languages in computer communication is that it is difficult to typeset text using modern word processors such as the Microsoft Word. The orthography of most African languages uses under-dots and diacritic marks which are not represented in the standard ASCII[1] code (see Owolabi, 1989). Although the UNICODE[2] system contains a number of symbols that can be used to assemble the required characters, the use of these symbols still present problems since some letters involve the stacking of under-dot, base-character and diacritic marks. There are hardware and software dimensions to this problem. The hardware aspect of the work involves the design of keyboards in which the African letters are adequately represented in a way convenient for typing while the software aspect involves the development of programmes that will interface the keyboard to the operating systems and other relevant software.

At ALT-I, a keyboard layout for typesetting Standard *Yorùbá* (SY) has been developed (Adegbola, 2006). The SY keyboard layout utilises the keys of the standard QWERTY keyboard that are not used in *Yorùbá* to substitute the needed keys for *Yorùbá*. Examples are the use of the Q key as a substitute for the sub-dotted O, X for the sub-dotted E and Z for the sub-dotted S. In addition, the C and V keys are used to apply the low and high tone diacritical marks to vowels. This approach guarantees that no *Yorùbá* character requires more that two keystrokes, and it has been confirmed that this improves the efficiency of typesetting text. Based on this keyboard layout, which is essentially a software realisation, appropriate marks can be made on a physical keyboard to indicate the appropriate keystrokes for each SY character.

ISSUES IN TECHNOLOGIES FOR SUPPORTING DIALOGUE ARE DISCOURSE

Computer-mediated communication (CMC) is an interdisciplinary research and development activity involving scholars from different fields, ranging from the arts through the pure and applied sciences to engineering. Research on discourse behaviour and digital communication also benefit from the philosophy of language and human communication as well as theories about human social interactions. There are computing and engineering issues pertinent to the development and deployment of the technologies for supporting discourse and dialogues. In this section, we shall discuss these issues in the context of discourse and communication in African environment.

The Computational Issues

Computation is the manipulation of concepts in the process of problem solving. The concept being manipulated may be represented in linguistic, numerical, symbolic or geometrical form. It may also be represented in a hybrid form using a combination of two or more of the above forms. The manipulation of concepts involves accurate perception and coding, unbiased judgment about their values, prioritisation, processing, storing as well as refinement. Appropriate and efficient communication system underlay any constructive discourse environment and for a communication system to be effective, it must be based on an unambiguous concept representation, manipulation and transmission framework. The modern computer serves a power tool in this regards.

The computational issues that are of importance in the development of systems to support discourses in the African context includes the following:

i. How to describe and represent the knowledge underlying African systems of communication in a form amenable to computation, e.g. numerical, graphical or symbolically?
ii. How to develop computational models for manipulating the represented knowledge?
iii. How to exploit and use the models in (ii) to develop modern tools and artifacts for supporting discourse?

To address the first issue, we think that the symbolic cosmology of the people is very crucial. There is the need to critically and analytically address the question of how African people represent concepts? For example, *Yorùbá* uses the vigesimal number system (Base 20) (Ekundayo, 1977), which is different from the decimal system (Based 10) used in most of the Western world. This is also different from the binary (Base 2) number system used in the design of computers. However, the *Yorùbá* symbolic cosmology uses structures such as a tree, e.g. the family tree, in representing concepts. It is important to note that the tree structure is "universal" and it is also uses in computer file organization. Identifying the similarities and differences between African symbolic cosmologies in this manner will facilitate the design of a more appropriate representation paradigm for discourse modelling.

To address the second issue, we think that language communicates immediate knowledge while culture stores established wisdom. As wisdom is an accumulation of well tested knowledge over a long period of time, a systematic study of the language used for communicating knowledge is very crucial. The development of a computer-mediate communication technology must therefore be based on a systematic, retrospective and reflective review of African language. Such systematic study should look into the past, i.e. into the peoples culture, with the aim of identifying the burial cites of knowledge so that they could be exhumed to develop technologies that will not only be useful technologically, but that will help to reinforce and support the peoples' culture through their use in CMC based discourse.

Addressing the third issues requires engineering skills and the need to sensibly and pragmatically exploit what the modern technology can provide. This task involves the specification, design, analysis, implementation and evaluation of systems bearing the African context in mind. A conscious and deliberate attempt to reinforce useful African culture should underlay this development task. The aim will be the development of computational artifacts for supporting communication during discourse. Using such artifacts will lead to the development of communication products and techniques that are more likely to be amendable to the African environment, and hence more acceptable and appealing to the people. This is because people will be better able to relate with the fundamental concepts underlying such technologies as it is based on their world view. This could help to improve discourse and communication and thereby improving potential for reaching consensus during dialogues.

The *Ayò* game can be used to illustrate this further. The knowledge underlying the *Ayò* game could be carefully analysed computationally and ideas such as resource sharing, economics strategies, etc. can be developed around it in a manner similar to how Sudoku and Chess are used in Asia and Europe. In the minimum, such ideas could serve pedagogical applications that will bring about a system that could be used to explain ideas to students using paradigm and framework that they are more familiar with.

The Engineering Issues

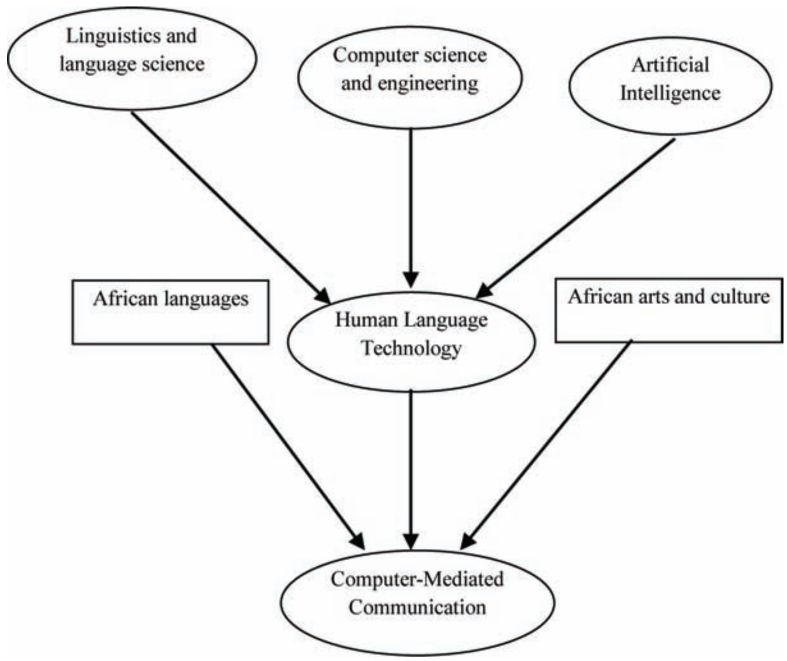
For the purpose of this communication, we will describe engineering as the application of scientific knowledge in the process of developing systems and artifacts that satisfy some human needs. Design is the central issue in engineering and it involves the conceptualization of problem and the construction of the most appropriate solution based on available solution alternatives and bearing in mind the context of application. The context in our case is the African environment which is characterised by a number of technological challenges. Figure 3 depict a schematic of the various engineering issues as they are related to computer-mediate communication. The requirements and specification for a system intended for supporting discourse and dialogue is by no means a trivial engineering issue. To adequately address this issue, it is important to consider a number of factors including human and materials resources, deployment strategies, cost as well as system sustainability and maintenance. Other issues relates to their applications in education or pedagogical framework, research and development as well as documentation and preservations. We will discuss some of these issues in the following subsections.

Human Resource

Human resource is the most critical to the development of any technology. In human language technology, the personnel required is composed of people with skills in many different fields including: linguistics, computer science and engineering, speech science and engineering as well as cognitive sciences and artificial intelligence. At the moment, such manpower has not reached the critical mass required for the development and sustenance of these technologies for African languages. The task of assembling and managing such manpower is challenging.

To get the required manpower, there is the need to get students interested in the subject of

Figure 3. The context of CMC in African language technologies



African language technology. A motivating factor that could be used to attract students is that, language technology combines expertise from the humanities, natural and behavioural sciences, with engineering. This makes the subject interesting and fascinating as students can explore their creativity and their learning experiences for the benefit of their immediate society in particularly, and the global community in general.

The higher education curriculum and the admission criteria in most African countries do not recognise the emerging manpower need for language technologies. For example, to the best of our knowledge, there is no higher institution in Nigerian, and indeed in West Africa, were human language technology is offered as a discipline. Offering human language technology subjects in our higher institutions and creating research centres around them will help accelerate the development of technologies relevant for the African language and culture.

Material Resources

i. Central to the development of a viable language technology is a well designed and implemented language resource and infrastructure. The activities involved in the development of such infrastructure include, but not limited to: Text collection, organisation and tagging (e.g. part of speech tagging);
ii. Speech recording and annotation; Integration of annotated speech and text by creating cross indexes between text and speech tags;
iii. Communication models;
iv. Speech and language theories and ideas generation.

Apart from access to high quality publications and technical literatures, the following facilities are required for the development of African language technology:

i. Computer based speech processing laboratories with adequate equipment and software and language resources. Requisite input and output devices, such as noise canceling microphones, double muff headphones and acoustically treaded rooms are essential;
ii. Speech synthesis and recognition platform such as the Edinburgh Speech Tools (distributed with Festival) and the University of Cambridge, HTK;
iii. Speech data generation, viewing, editing and annotating software such as *Praat,* Speech Filing Systems *(SFS)* and *Wavesuffe*r;
iv Good operating system for supporting multilingua research, such as the *Ubuntu*

An important advantage is that the software and platform listed above are freeware and available for free download for research and educational purposes.

Intellectual Resources

There is the need to develop appropriate theoretical frameworks to support modelling and abstractions for African language based discourse. What is generally available are "impressionistic descriptions" of the most of the languages (Connell & Ladd, 1990; Laniran, 1992). To achieve the development of these theoretical frameworks, there is the need to create discussion forum on different language theories, particularly those that are known to work well for Asian tone languages, with the aim to see how they can be adapted for African languages. Ideas can also be borrowed from non-tone languages and augmented with new research data.

The production of effective tools to help with language-oriented tasks requires specialized knowledge and deep understanding of the communication paradigm of African language. For example, computational realisation and experimentation with linguistic theories of languages could focus on the model used in dialogues, formal and informal, and related communication context. Age-old communication strategies such as *Aroko*, *Afilusoro*, etc. among the *Yorùbás*, offer important information theoretic basis for the development of new ideas around modern computer communication infrastructure. These ideas need to be further explored in detail and developed to a level where they can inform the design and implementation of communication products.

Policy Issues

At the level of policy, there is an important role for and other policy making agencies to formulate policies that will promote the adaptation of modern information communication technologies for supporting dialogue in African languages. For example, technology products such as mobile phones and computer software meant for the African market, particularly those intended for educational and research uses, may be require to provide tools, documentation and instruction in African languages spoken in the region where the product will be used in addition to a popular language such as English.

Education policy may also require that graduates of higher institution must be skill in language related technologies. Special grants may be provided to develop specific technologies for African languages. For example, project such the *Ubuntu* can be specially funded by more groups and individuals so that language and dialogue technologies can be made available to as many people as possible. Such project can be backed by funds channeled with proper cognisance of monitory groups and their language and dialogue needs. Tax breaks may also be offered to organisations that support research and development in language and dialogue technologies.

Advocacy

In order to promote widespread awareness of the importance of language technology to the African languages, a comprehensive advocacy programme may be useful. Such programme will address all areas of publicity and documentation of all activities involved in the development of language and dialogue technologies in general and those on African languages in particular.

The strategy to be adopted in realising language technology goals of Africa should address both long term development of human language technologies while making room for short term implementations in the use of the technology for communication and dialogue. The short term aspects will involve implementations that address the development of concrete products. An example of a short term implementation is the development of a simple and small software that use *Yorùbá* on mobile phones, personal digital assistant (PDA), game consoles, bill boards and interactive information kiosks by *Alt-i* is a step in this direction (Adegbola, 2006). The aim of the short term goal is to motivate and sustain interests and efforts in developing relevant technologies and products around African language and culture.

The long term aspects of the advocacy strategy will involve addressing the big picture of integrating modern information technologies into African culture in a manner that is sustainable and preserving. The overall strategy will address human and material resources development as well as policy and advocacy issues. The philosophy underlying such paradigm, and the development of prototypes within its framework, are pertinent and relevant engineering issues in the realization of the technology for supporting discourse in African language. The needs to be articulated and standardized this paradigm is very important.

IMPLEMENTATION ISSUE

The implementation framework that must be adopted in the endeavour to develop CMC technology for African environment must reach deep into the foundation of African language and culture, interpreting and representing them in the light of the state-of-the-art in information and communication technology. For example *Ayò,* or *Iware,* has been used to develop game products, it can be further explored to discuss and illustrate computer models by developing abstract machines around its instruments and methods of play. This will serve an enormous teaching resource. African language based stories can be developed into games for children as well as products that could have education and research applications. The implication of this on discourse can be very pervasive.

The technology realization of such framework for dialogue and discourse application can bring about huge benefit since it can help in the reduction of communication barriers between and amongst people. For example, a machine translation system could be developed to translate texts from one African language to another and the literate members of the communities in the translated languages can communicate and exchange idea. The good thing about this is that it is not necessary to develop a machine translator for every pair of languages. Once a base language has been identified, all other languages can be translated to and from that language. For example, if we develop a machine translation from Yorùbá to English and one for *Hausa* to *English* we do not need to develop another one for Yorùbá to *Hausa*. To generate equivalent Hausa text from Yorùbá we first translate the Yorùbá text to English. The English text is then translated to Hausa. To cater for the non-literate, or the visually impaired, members of the community, speech recognition and text to speech synthesis systems can be integrated into the machine translation system.

The social implication of some possible negative applications of these technologies should also be stressed and ethical education put in place to address such.

CONCLUSION

In this chapter, we have discussed the computational and engineering issues surrounding the development of computer-mediated communication technologies for supporting African language discourse. We have shown that it is important that relevant language technologies which exploits and implement services available on modern Information and Communication Technology be developed around African languages and cultures. We have discussed the key applications of the technologies and the strategies for its realization. We also discussed the resources as well as the policy issues that will make these technologies achievable.

The strength of language technology research is in the development of tools, techniques and systems that can be used to enhance human-machine interaction by making the machine accessible to people from different educational and cultural backgrounds. An important challenge in human language is that we, as humans, still do not understand, definitively, how people produce and comprehend language. However, research output over the years indicates that our knowledge of the intricate mechanisms that underlay human language processing keeps growing. Modelling such mechanisms on a computer could help us to discover and formally describe hidden properties of human language. The long term goal of such theoretical research would be the deep understanding of human language and the powerful communication intelligence embedded within it. If successful, the implication of such research to computer mediated communication in African languages is enormous.

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KEY TERMS AND DEFINITIONS

Human Computer Interaction: The interactive activities in an environment that includes humans and computers, particularly the activities involved in using the computer for problem solving and message transmission.

Communication Technology: Techniques and devices used to transmit messages between two physically separated locations or entities.

Computer Mediated Communication: Exchange of ideas between two or more humans using communication technology.

Speech Recognition: Generation of automatic actions based on an input human speech sound.

Speech Synthesis: Generation of speech-like sound by machines that input texts and/or other commands.

Machine Translation: Translation of text or speech from one language into a text or speech with similar meaning in another language.

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