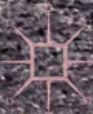




Gender and Memory in the Global Age

Anna Reading

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*For the women, men and children forced to move to escape
poverty, violence and war*

PREFACE: THE FEMINIST MNEMOLOGIST

I have long struggled with the question of how cultural memories relate to gender. When I was a child in the 1960s and 1970s, I was struck by how absent girls and women were from my own family's memory. I then found at school that women were also absent from historical accounts; I noticed how little I saw women characters in films playing major roles; how rarely women figured in memorials and museums. I knew early on that the word was important and the published word even more important. So, I wrote diaries in secret as many young girls do, and then, as fewer adult women do, I wrote stories in the form of plays and books for the public. On reflection, I realise that I wrote stories in which the memory of women and women's memories were always a priority.

The absence and marginalisation of the memory of women in memory is not that different in 2016. But, in my own lifetime, the way that cultural and mediated memories are made, stored and disseminated has changed radically through the rapid and uneven processes of globalisation and digitisation. The diary is now also the blog; the letter the email; the family album is a networked gallery; the genderless baby snugly hidden in the warm dark of a mother's womb is scanned and made visible to be gendered, named and shared across the globe. The once unrecorded genocide of death camps is witnessed through mobile phones and made public through the internet. A man's recorded voice is sent back to earth from a robot on Mars.

In my work as a playwright, as a journalist and as an academic, the remembered stories have taken on new dimensions through the synergetic transformations of digitisation and globalisation. When I began work in

the 1980s, writing and knowledge production was pre-internet. I wrote on a manual typewriter and then in 1986 I bought a small electronic typewriter which had the capacity to remember 13 characters. Research was conducted by going to libraries and archives, with interviews and focus groups organised through writing letters and making phone calls to people who had no answerphones or voicemail. When I began working at the University of Westminster in 1992 I started to use an early version of email and adapted my working practices so that I could organise research using email and fax. By then I had started using a heavy laptop computer, the size of a bulky briefcase, on which I could save data and writing. I began to adapt not only my working practices, but my mind and body. There was still no WiFi, no internet, no mobile phones and no social media. In contrast, in the course of writing this book I have barely been to a library. I call up documents from my computer desktop; or sometimes from my tablet. I write using multiple screens and software that allows for voice-operated technology, a consequence of the heavy 1990s laptop computer that caused lasting repetitive strain injury. I download journal articles and electronic books as I need them. I order books for purchase that are delivered the next day. I communicate easily with people around the world, working in different time zones, talking via Skype and arranging interviews via mobile phone and email. I organise complex working days around the needs of my young family through an electronic diary that works across multiple devices, to which key administrators at King's and my partner also have access. I keep multiple digital copies of my manuscript as I write; I save it to a memory stick, to several hard drives and to the Cloud. Like many academics my own memory and knowledge-making has adapted through and with technology.

This book also began its life with my becoming a mother after a journey of successive loss, recorded through digital medical technologies, of several of the unborn, followed by the successive birth of two wonderful children. The book developed its life further through a transcontinental move around the world which changed my thinking substantially in terms of my experience of movement, of digitisation and globalisation. We moved to Australia in 2011 with our two children then aged four and six. We shipped everything 11,500 miles from the UK to Sydney including diaries, notebooks and journals, books, maps and photo albums, and backed up all our data to an external hard drive, memory sticks and to other computers via the Cloud (we also shipped the piano). Eighteen months on, we moved back to the UK, so I could take up a professorship at King's

College, London. I brought all my digital memories and a different sense of colonial history with me, along with a deeper sense of ancient memories linked to the landscape and the indigenous people and cultures of Australia which has enriched my work.

As a mnemologist—one who studies, researches and writes about memory—and a feminist—I am motivated to understand how memory is gendered, how women and men over millennia have practised, produced and experienced memory both differently and the same. How do the changing scales of memory, from the micro to macro, through digitised and globalised technologies, implicate gender in terms of access to memories, different uses of them, and the value given to them in different societies? What does this mean for gender equality? How best can feminist memory make a difference?

These are the kinds of questions this book seeks to answer for the 21st century, starting from the memory of the birth of the human being, travelling through the mundane memories of the everyday and finishing with the public witnessing of violent death. Throughout, there is the interrogation of what this means for gender equality and for the mobilisation of feminist memories to make a difference. I hope in some small way the labour of this book and my own passion for thinking about memory in the digital–global—the *Globital* Age, combined with your processes as the reader might lead to trajectories that will make a small difference to the inequalities that women continue to face. It is from creative but intense feminist labour and passion that gendered transformation works.

Anna Reading
London 2016

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I have met many amazing people who have helped me with the journey that became this book. Some have given me practical support, others have given me songs, food, chickens and love. Some have shared ideas and thoughts. I would like to thank the following people with whom conversations were invaluable in developing my thinking as well as keeping alive the spirit of feminism that breathed life into this book. At Western Sydney University, Ien Ang, Ned Rossiter, Brett Nielson, Juan Salazar, Emma Waterton, and Tanya Notley were particularly important in terms of conversations that contributed to this book. At London South Bank University where I worked between 1995 and 2010 I would like to thank Jenny Owen, Hillegonda Rietveld, Andrew Dewdney, Katrina Sluis, Paula Reavey, and Daniel Rubinstein. At the journal of which I have been an editor now for many years, *Media Culture and Society*, I have had critical conversations with my editorial comrades Raymond Boyle, John Corner, Colin Sparks, Philip Schlesinger and Paddy Scannell and more recently with a new generation of Associate Editors Emily Keightley, Anastasia Kavada, Burcu Sumer and Aswin Punathamsar. Particular colleagues within the field of memory studies have been especially memorable in their consistent support over the years, especially Richard Crownshaw, Joanne Garde- Hansen, Andrew Hoskins, Stef Craps, Astrid Erll, Mike Pickering and Barbie Zelizer. I have benefited from many important questions and interchanges with with Aleida Assman, Michael Rothberg, Ellen Rutten, Jose Van Dyke, Amit Pinchevski, Brenda Chan, Susan Pearce, Erit Dekel, Motti Neiger, Oren Meyers, Eyal Zandberg, Gillian Youngs,

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Introduction

For tens of thousands of years human beings have sought to give present and future generations access to the past by making records of events and genealogies. Men and women have made cultural and mediated memories of everyday life as well as major events by using many kinds of media technologies, from the scored and painted marks on the walls of rocks to the creation of trackways between burial sites, from the handing down of orally transmitted songs, stories and poems to the figuring of rituals and dances. Technologies for making and preserving cultural and media memories have transformed, from hand-crafted manuscripts to the printing of books, from the crafted singular image to the mass production of photography and films. The advent of computer technologies has led to media and cultural memories being transformed again with the capturing and sharing of everyday memories through mobile devices and social network sites.

Communication and media technologies are, as Marshall McLuhan (1964) observed, extensions of the body: the car extends the feet, the hammer the hand. Technologies also extend human memory: from the technology of shaped flint for making visual reminders, to the technology of the internet as an extension of the human nervous system.

These technologies are not gender-neutral, and neither is memory: as N. Katherine Hayles in *My Mother Was a Computer* (2005) suggests, gender

is transformed through the digital text. This book explores this proposition further and seeks to address a lacuna in research through thinking about how digitisation and digital cultures might transform the gendering of memory and memories of gender.

However, rather than a general exploration of gender and memory in ‘internet cultures’, ‘big data’, or, ‘archives’ the chosen focus of this study is how mediated memories are transforming memory and gendered memory through and with mobile and social technologies. It would have been possible to give emphasis to many other media or approaches to digital cultures, such as digital games, virtual memorials or the living archive, but the emphasis here is on the transformation of the gendering of memory through new affordances of mobilisation enabled by the mobile phone and social networks in unevenly globalised internet cultures.

The rationale for this is that mobile and social technologies are at the heart of everyday digital connectivities. The mobile phone has impacted more and had a greater take-up per capita worldwide than the personal computer, especially in developing countries, often leapfrogging legacy technologies or acting as an alternative to other kinds of digital technologies that may be difficult to access in poorer communities (Horst and Miller 2006). There is also very little specific research around mobile technologies and memory, and even less that gives an emphasis to the implications for gender.

Understanding mobilities or ‘mediated mobilities’ (Keightley and Reading 2014) is key to understanding transformations in the mobilisation of mediated memories in the 21st century. Cultural and mediated memories have, of course, always been circulated and mobilised by individuals and stakeholders. Jan Assman has shown how in ancient Egyptian cultures memories moved and changed (2010). Research on cultural memory in South American cultures has shown how memories were mobilised through walking between grave sites (Abercrombie 1999). Memories, as Astrid Erll, has argued, are always in a sense ‘travelling’ (2011): memories move, and indeed are moving in both the spatial and affective senses of the word.

The research for this book evidences how mobile and social technologies enable mobilities of mediated memories in new ways with complex implications for gender and the gendering of memory. This needs to be addressed within media and memory studies because, as I shall show in Chap. 3, historically ‘new’ technologies in previous epochs have changed mediated mnemonic practices. Connective cultures—the ability to mobilise data through mobile phones and via the internet—enable personal memories to become public rapidly; mobile media facilitate in new ways

the capture, storage and sharing of messages, images and sounds that are records of events. Digitisation combined with globalisation enable humans to mobilise memories that cut across the individual and the collective, the institutional and the corporate, the local and the global in ways that disrupt conventional binaries of the public and private, of the body and other. Studies have shown that earlier media and communication technologies consistently implicate memory in ways that are gendered (Yonkers 1995; Weber 2008). Thus, this book asks how digital technologies and digital practices are not only changing memory but changing the relationships between gender and memory. Do digital technologies create new possibilities in terms of cultures of production? Are men and women using mobile and social technologies in different ways to record their autobiographies or share their lives? Is the mobile witnessing and archiving of events reconfiguring how the stories of men and women are told? This book argues that the combined dynamics of digitisation and globalisation are having profound and polylogical implications for the gendering of memory.

The study challenges current thinking in media, memory and gender studies by taking a gendered approach to memory and digital media, developing in more depth and from a feminist perspective memory in the ‘Global Age’ through the concepts of ‘global memory’ and the ‘global memory field’. The book examines how gendered memory domains and trajectories work within a digitally mediated globalised economy.

BOOK RATIONALE

The transdisciplinary academic study of memory over the past 20 years has grown to the extent that it now constitutes its own academic interdisciplinary field, with a number of book series addressing undergraduate and postgraduate modules on the subject in the UK, US, Australia and internationally within a range of disciplines, as well as the successful journal *Memory Studies*, and regular conferences on aspects of memory. Over the course of my own career I have been transformed from a scholar who had no special disciplinary home and who readily moved between and drew on insights from the disciplines of English, theatre, politics, sociology, women’s studies, media, culture and communication studies in order to try and understand cultural and media memory. Two decades on, I am a scholar clearly situated within media memory studies. I call myself a mnemologist, just as scholars at the beginning of the 20th century who sought to enquire into society began to call themselves sociologists.

Within this interdisciplinary field, there have been significant developments in the understanding and analysis of cultural memory (Erl 2011) as well as more recently the recognition and growth of work within ‘media memory’ (Neiger et al. 2011). Over this period research and studies on gender and memory have also grown, although there is still much less research and published material available that focuses on gender and memory transnationally, and virtually no work that considers how the articulations of gender and memory are changing through the combined dynamics of digital media technologies and globalisation.

Earlier work on gender and memory tended to examine memory within specific national and historic periods with an emphasis on literary memory and oral memory, such as Lucy Noakes (1997) *War and the British: Gender, Memory and National Identity, 1939–91*, Lynne Hanley’s (1991) *Writing War, Fiction, Gender and Memory*, or Faith Beasley’s *Revising Memory: Women’s Fiction and Memoirs in Seventeenth-Century France*. There was also in the 1990s a growth in research on women and the memory of the Holocaust, with a particular emphasis on individual memoirs and collections of memoirs by women (see De Silva 1996; Eibeshitz and Eilenberg-Eibeshitz 1994; Gurewitsch 1998; Laska 1983; Rittner and Roth 1993). This was part of a broader epistemological shift that was arising from the foregrounding of oral history and memory within the study of history and with it the oral history of women. Hence, in 1996, a seminal edition of the *International Yearbook of Oral History and Life Stories* devoted an issue edited by Selma Leydesdorff, Luisa Passerini and Paul Thompson to oral history research that considered gender differences.

The past ten years has witnessed a discernible increase in published materials that focus on gender and memory. These have extended out of disciplines other than history and literature to include psychology, such as Janice Haaken’s *Pillar of Salt* (1998), as well as cultural studies and sociology. However, studies are largely configured around ideas of the nation, as well as situated within a particular historic period. Thus Sylvia Paletschek’s (2008) edited collection, *The Gender of Memory: Cultures of Remembrance in Nineteenth- and Twentieth-Century Europe* examines women’s cultures of memory in the context of the development of nation states.

There are also several studies that bring into the public realm lesser-known memories of women in non-Western contexts of repression. These include, Fatma Kassem’s *Palestinian Women: Narrative Histories and Gendered Memory* (2011) Nefissa Neguib’s beautifully written and researched *Women, Water and Memory: Recasting Lives in Palestine* (2009)

as well as C. Sarah Soh's (2008) *The Comfort Women: Sexual Violence and Post-colonial Memory in Korea and Japan* and Susana Rotka's *Captive Women: Oblivion and Memory in Argentina*. We have also seen the development of new work on gender and memory in other national contexts such as 'Gendered Memories, the Heroine's Journey in Time' in *Dialogics of the Self: The Mahabharata and Culture* (2010) by Lakshmi Bandlmudi, and *Uneasy Warriors: Gender, Memory and Popular Culture in Japan* (2007) by Sabine Fruhstuck, as well as Jill Didur's *Unsettling Partition: Literature, Gender and Memory* (2006) and *Mammy: A Century of Gender, Race and Southern Memory* (2007) by Kimberley Wallace-Sanders.

At the same time, there was a continuation of work from the 1990s on gender and memory in relation to the Holocaust with books such as Birgit Maier-Katkin's (2007) *Silence and Acts of Memory: A Post-war Discourse on Literature, Anna Seghers, and Women in the Third Reich*, and Vera Apfelthaler's (2007) *Gendered Memories: Transgressions in German and Israeli Film*, which moves the analysis of gender into mediated memory.

What is missing, however, is significant critical engagement with digital communication and media technologies and the ways in which these rearticulate relationships between gender and memory through reconfiguring mediated and cultural memory in new ways. This lacuna is noticeable given that communication and technology studies have evidenced how new media technologies in earlier epochs reconfigured gender and memory, as with Harold Weber's *Memory, Print and Gender in England* (2008). Significantly, Weber examines the ways in which print technology in the 17th and 18th centuries made the distinction of gender central to processes of literary memorialisation, marginalising through the advent of the mass printed book the work of women authors and writers. His research, as I explore in more detail in Chap. 3, 'The Global: Concept and Method', signals the need for a study such as this, specifically addressing gender and memory within the similar but different technological mnemonic revolution taking place through globalisation in combination with digitisation and digitality.

At the same time, although there is little work in this area, there is clearly recognition of the perspective that gender brings to the study of memory and media memory in particular. Michael Rothberg's (2009) *Multidirectional Memory* includes recognition of the significance of gender as well as 'race' as part of its main argument. Several studies have also suggested the importance of rethinking time in relation to questions of sexual politics and gender. Kath Weston's (2002) *Gender in Real Time: Power and*

Transience in a Visual Age begins to address questions of globalisation and capitalism in relation to time and memory from a gendered perspective. Likewise, Susanna Radstone's (2007) *The Sexual Politics of Time: Confession, Nostalgia and Memory*, examines questions of sexual difference in relation to temporality within modernity and postmodernity. A number of key conferences and symposia have been significant, including one on 'Gender and Memory' at Birkbeck College, University of London (September 2010) and a workshop on Gender and Memory at the Institute for Advanced Studies, London, (December 2010); an international conference on 'Gender and Memories of War, Conflict and Genocide' in Istanbul in 2012 and a symposium at Kings College, London in July 2015, 'Gender Re-Called', which brought together new ideas around gender, memory and the arts.

Thus, the themes and concerns of this book are set in the context of an increase in interest in memory studies and its extension into memory studies, gender studies, and media and cultural studies, particularly research into digital cultures. In terms of my own work this book brings together and develops interest and research on gender and memory that began in the late 1980s with research in Poland. Originally, I was going to take the reader through these earlier arguments and studies but instead I provide a genealogy in Chap. 9, 'Epilogue: Gender Recalled'. This reflexive mode is part of the critical work of the feminist mnemologist to consciously mobilise feminist intellectual history, which will otherwise be buried and lost within patriarchal mnemonic cultures. The aetiology of this study lies in that earlier work but this book seeks to bring a gendered perspective to the development of an epistemology around what I have termed in various essays 'the global' and 'the global memory field' as well as the idea of 'global time' arising from the synergetic processes and practices of digitisation and globalisation.

My wider argument is that the synergetic practices and processes of digitisation and globalisation confound the specificity of media, enabling transmedia story telling as well as what Colin B. Harvey has noted as 'transmedial' and 'intra-medial' memory (2015). Men and women are required to practice mnemonic skills through a globalised digital interface which may build on but also change established gendered patterns and mnemonic practices. For both men and women, the mnemonic 'home' is no longer where the heart is, nor is it merely the place of family and hearth. One's mnemonic home is also where women's and men's digital assets are, which is seemingly both nowhere and everywhere.

Yet, a critical reader will note that a substantial strand of my earlier work on developing what I have termed the 'global memory field' does not treat

gender as the main lens through which to examine digitisation and globalisation in relation to memory. Hence, in part, this book seeks to build on the overall scope of work that had these themes and trajectories in relation to gender and memory and bring these together with work on digital media and memory: I seek to make an intervention into memory studies to contribute to the foundations and development of the emergent field of feminist memory studies that makes gender a central tenet of enquiry and practice.

This book is thus a contribution to the building of feminist memory studies, asking how human memory is gendered through technologies that include the mobile phone, social media, medical imaging, the internet and the digital archive, rearticulating gender and media memory. From this it then asks in what ways does this imply the need to rethink not only gender and memory but particular concepts within memory studies itself.

The book is intended to be read by activists academics, research students and researchers who have a focus on digital media, memory and gender-related subjects. However, as with my previous monographs, although using original empirical data, and situated within an emergent theoretical framework, in terms of its arguments, language and topicality it is meant to be accessible to undergraduates, as well as those working in public memory and knowledge-making institutions, including museum workers, curators, policy-makers, technology drivers, journalists and artists. It is of interest to students taking modules in communication, media and cultural studies, history, memory, gender and women's studies within the social sciences and humanities, or seeking master's degrees in communication, media, gender or memory studies.

BOOK SCOPE

The book begins with an examination and overview of how gender has been thought of in relation to work on memory, and how gender and memory have been conceptualised in relation to media technologies. It then provides a new basis for thinking about gender and memory in the context of globalisation and digitisation through the emergent conceptualisation of what I have termed 'global memory' and 'the global memory field'. Empirical work is introduced in Chap. 4 through the use of a device long-established within sociology by giving emphasis to the scholar's imagination: I examine the ways in which memory, gender and technologies have been imagined in utopian and dystopian literature since the 15th century, drawing on both well-known examples and lesser-known works

by feminist authors which have been largely forgotten. After examining gender, memory and technologies in the creative literary imagination, the book examines gender, memory and technologies through three further domains and themes: the body and birth; the home and everyday life; and the public and journalistic witnessing of violent death. Thus Chap. 5 examines memory, gender and technology from the birth of the human being and inside the domain of the woman's body, beginning with the question of gendered memories in relation to medical imaging. In Chap. 6 I move on to examining how mobile and social technologies are being used in the domain of the home, transforming gendered memories within and beyond domestic environments. In Chap. 7 the book scrutinises memory in the public domain, focusing on how news events within journalism become memories that are witnessed, archived and globalised in gendered ways. The book concludes with an analysis of a case study that seeks to examine how feminist memories may be mobilised within the global memory field. This involves a reflexive analysis of my own contribution as a feminist playwright to *Phenomenal People*, a collaborative project with Fuel Theatre that sought to mobilise women's memories. I include as an appendix the short script, *A Letter to My Daughter*, that I wrote and performed as part of the Fuel Theatre project. The book ends with an unconventional epilogue, 'Gender Recalled', which is an intellectual genealogy of my work that led to the idea of 'global memory' and a brief critical reflection on the importance of keeping gender in the mainstream of thought.

The book thus offers readers an historically and culturally situated critical understanding of memory from a transdisciplinary gendered perspective using a number of topical and contemporary media contexts, including utopian literature, medical imaging, mobile phones and social media, journalism and mobile witnessing, and the feminist archive and gender.

RESEARCH METHODS

Both conventional and emergent research methods have been adopted for this book. I use a multi-modal approach that includes legacy methodologies from the social sciences and humanities that largely understand subjects of analysis in ways that are bounded, discrete and generally static. But, in addition, I suggest some new analytical approaches. This is because part of my argument for this book is that gender and memory in the Global Age is characterised by the importance of trajectory and movement. The global memory field involves the mobilisation of digital data, people, artefacts and gadgets as well as their securitisation and stabilisation in particular moments in time. As John Urry (2007) has emphasised for sociology, within a mobilities

paradigm it is important to develop new kinds of mobile methodologies. The state of flux in the study of memory requires methodologies and modes of analysis that follow or capture in some way conceptually and empirically the trajectories of memories on the move. Thus, as an analytical framework or guide I suggest six key trajectories that can form a consistent basis for researchers to productively trace and analyse memories on the move. In my earlier work on the global memory field as a concept and form of analysis I suggested that these trajectories can be understood in terms of movements and transformations related to transmediality, velocity, extensity, valency, modality and viscosity, concepts explained in depth in Chap. 3. Tracing memory assemblages through these trajectories in various combinations reveals complex gendered characteristics arising from the fusion of digitisation and globalisation. Throughout the book this approach is combined with the use of conventional or legacy methods and modes of analysis.

In Chap. 4 I develop the idea of an analytical approach that makes use of the feminist mnemonic imagination, drawing on a combination of poststructuralist feminist analysis of literary texts within the framework of Utopia and the imaginary, understood within sociology to be a methodological approach in itself. In Chap. 5 I use the established sociological and cultural studies method of autoethnography, combining my experiences during pregnancy of the medical imaging of the growing human foetus with secondary studies that use a variety of methodologies to address how medical imaging is changing pregnancy and birth. I combine this with comparative work on a text on pregnancy and birth from the beginning of the 20th century. The framework of analysis within the focus on the domain of the body and the theme of childbirth is the tracing of assemblages of memory with reference to the six trajectories of the global memory field.

In Chap. 6, I use the legacy methodology of qualitative interviews conducted with participants in London through two qualitative studies conducted seven years apart in 2008 and 2015. Through the interviews I studied how women respondents, both digital born and digital migrants, were using mobile phones as memory prosthetics in the domain of the home and everyday life. This empirical work is combined and contrasted with secondary sources that have examined mobile phones in relation to gender. This empirical and secondary-source material is then situated within the framework of analysis that focuses on tracing the ways in which assemblages of memory are mobilised across six trajectories of the global memory field.

In Chap. 7, I deploy the legacy methodology of analysing the meanings of discrete journalistic news images of death and dying generated through mobile phone witnessing, in combination with social media, of what has been termed the War on Terror. This is combined with secondary studies

on the uses of mobile phones in relation to gender and witnessing in wider contexts beyond the UK in order to highlight the unevenness of the global memory field. As with the previous chapters, this analysis is situated within an analytical framework tracing the recording, transmission and distribution of mobile phone witness images through and across the six trajectories of the global memory field.

In terms of research design, the book was conceived and developed over five years: it was derived from a number of discrete studies on particular aspects of digital media and memory as well as work that continues to build on my earlier research into gender and cultural memories of the Holocaust. The overall design is such that I seek to explain gender and memory in the Global Age through the model of the global memory field as something that penetrates the human body while extending and connecting that body to the far reaches of the known universe. The all-seeing eye of electronic and connected machines records, archives and reassembles representations and stories of the age in ways that are interior to the body and externalised beyond planet Earth. All of these trajectories in one way and another, I argue, have particular gendered dimensions that are evidenced at the conceptual as well as granular levels. It is essential to have some clear understanding of these trajectories whether we work in academia or in wider public life in policy institutes, public memory institutions or non-governmental organisations campaigning for equality. How memory is now gendered through, by and with digital technologies is critical to the ways in which humanity can generate a more equal future for men and women.

BOOK CONTENT

The book is divided into three parts: ‘Concepts’, ‘Domains’ and ‘Actions’. Part I, Concepts, maps current literature and reconceives memory in new ways for a feminist perspective that takes into account the significance of digitisation and globalisation. Part II, Domains, examines the global memory field through three clear domains, with examples in the form of various case studies. In this way the reader is directed to thinking about their own research and teaching, and memory work and how the concepts and methodologies in the first part of the book might be used and adapted for their own case studies. Part III, Actions, looks at how feminist memory studies may work in action. I look at one case study that has sought to mobilise feminist memories, then follow this with an example of a short script that I wrote for that project and end by mobilising some of my own work that led to this book opening up further new assemblages of feminist memory.

Part I: Concepts

Chapter 2, ‘Gender, Memory and Technologies’, begins by bringing to the foreground earlier studies on memory and gender in which communication and mnemonic technologies are a key element. Memory studies is often characterised as beginning with the memory boom in the 1990s. The intellectual impact of this, unfortunately, is to erase much earlier history not only of memory studies more broadly with its roots in sociology and psychoanalysis, but also a much earlier history linked to the significance of memory within social movements seeking political inclusion. Where human beings find themselves excluded, they often find themselves symbolically annihilated, and part of that symbolic annihilation involves an erasure of the past. Hence, part of the political struggle for recognition very often involves seeking to restore those forgotten stories of the past relevant to excluded parties. The chapter argues that by remembering feminist struggles and feminist theory a much longer genealogy of concern with the impact of technologies on memory is unearthed. It asks how communication and mnemonic technologies have been studied, used and conceptualised within a feminist interpretation of memory. It then seeks to enquire into the ways in which digitisation and globalisation are being conceptualised in relation to memory more broadly and into a gendered understanding of memory more specifically. How does feminist theory and activism understand the significance of digital memories? How are these conceived of in relation to global cultures? The chapter argues that, as yet, there is little feminist work that addresses the major changes to human memory practices languages and forms that are being articulated through the dynamics of digitisation and globalisation. This suggests the need to reconceptualise media memory and with it the kinds of methodologies and forms of analysis that are used.

Chapter 3, ‘Global Memory’, provides the analytical framework for the rest of the book by developing a gendered epistemology for the concept of global memory. It develops a model, a theoretical and analytical framework for the global memory field, drawing on literature from digital media studies, globalisation theory and transcultural studies. In the suggested model of the global memory field, mediated memory is conceptualised as an assemblage (de)securitised by memory agents within an uneven field of struggle that is articulated inside the body, through the body, and through states and transnational organisations. In a number of earlier papers (2011a, 2011b) I have argued that the field requires modes of analysis that are mobile and transformational, rather than static and discrete. The flux, flow and frictions

of these mobilities, it is proposed, may be examined analytically by tracing memory assemblages through one or more of six trajectories that include a focus on (trans)mediality, velocity, extensity, modality, valency and viscosity. The chapter then examines how gendered global memories might be articulated within and across these trajectories of the global memory field in both established and new ways.

Chapter 4, ‘Global Utopias: Literary Imaginaries of Gender, Memory and Technologies’, draws on the practice suggested by C. Wright Mills of using the ‘sociological imagination’ as a starting point for enquiries into social studies, combining this with Ruth Levitas’s argument that an analysis of utopia provides productive ways for the scholar to study and understand the present. It examines the ways in which gender and gendered mnemonic practices are imagined in utopian and dystopian fiction at pertinent points in human technological developments, beginning with the printing press and the memory technology of the book. The chapter then compares utopias from the 1930s and 1940s with the advent of broadcast technologies, before finally examining an example of feminist science fiction that developed at the point of computer technologies and their emergence in the late 1970s within broader mainstream cultures in the global north. These imaginaries of the different ways in which gender and memory technologies and techno-social practices may intersect and travel, I argue, allow for thought to be dis-embedded for a moment from the Global Age. They thus provide an imaginative and creative springboard for emergent analysis of the ways in which gendered memories are mobilised through the trajectories of the global memory field, foregrounding the implicated agency of scholar/writer and reader as memory agents themselves, assembling, mobilising and seeking to secure memory capital.

Part II: Domains

Chapter 5, ‘Global Body: Birth’, addresses the ways in which medical imaging, and obstetric sonography of the human foetus in particular, are now an everyday mnemonic modality in Western cultures, as well as industrialised countries such as India and China. I compare this with early 20th-century accounts of pregnancy and childbirth. I argue that the remembered narrative of the gendered self, prior to the advent of medical imaging of the human foetus, began at the biological birth of the newborn baby. Familial and autobiographical narratives before the birth of the baby were configured in terms of a gender-neutral ‘baby’ that incorporated

the doubly imagined future sex of boy and/or girl. With the advent and prevalence of obstetric sonography, however, especially in developed countries, the gendered dynamics of the global memory field enter the body politic of the mother's uterus and the body of the unborn foetus long before biological birth. The once professionally securised medical X-ray in the new form of the digital image or scan of the now known-gendered foetus is circulated via computer networks and made public through copying and sharing with friends and family, as well as becoming part of the conventional photographic album and on-line memories of the new person's biography. Such images also enter the assemblage of an on-line memorial if the foetus dies before term or shortly after birth. The chapter thus examines this new social birth of gendered human identity that is bringing the story of gendered memory into the global memory field. Tracing the six trajectories of the global memory field bring to the surface of understanding the particular significance of transformations in embodied gendered stories and memories from prior to biological birth.

Chapter 6, 'Global Home: Life', addresses the ways in which what were once personal and private cultural memories, the diary for example, or photographs and recipes kept within the relatively delimited domain of the family now escape the individual or the family as a semi-private space and enter and connect with public memory assemblages. The family album, as Jose Van Dijck notes in *Mediated Memories in the Digital Age* (2007), was once the book of photographic memory that remained in the semi-private domain of the family home. New media technologies such as social networking, on-line photo-sharing sites and the mobile phone mean that the way in which the story of the family's past is told has radically altered in many families. Individuals have images of their friends and family on their mobile phones; partners, friends and colleagues share and show images via mobile phones; families, groups and communities share images via on-line photo-sharing websites as well as social networking sites. Thus, using data from two studies nine years apart in London, Chap. 6 examines how the six trajectories of the global memory field reveal particular gendered processes of disembodiment, disembedding and disconnection in the memories of the home and beyond.

In Chap. 7, 'Global Public: Death', examines the ways in which the journalistic record as a form of cultural memory is changing through the use of mobile and social technologies in gendered ways. News journalism is increasingly captured by ordinary citizens recording events on their mobile phones and then emailing or uploading the sounds and images

to blogs and mainstream news organisations. Acts of state terror, suicide bomb attacks by terrorist groups as well as natural catastrophes are routinely captured on mobile phones. Elsewhere (Reading 2009, 2011a, b) I have argued that despite the seeming democratisation of mobile witnessing, images that are circulated by mainstream media organisations continue to set the agenda and have more memory capital to secure the past. The chapter then addresses how, if this is the case, the mnemonic capital mobilised through mobile and social witnessing of violent news events may be understood in terms of gender. It gives new feminist interpretations to questions of gender in relation to the mobile witnessing in Palestine/Israel, examining a Twitter feed from a Gazan teenager called Farah Baker, the 2005 London bombings, and the shooting dead of a young Iranian woman called Neda Agha Soltan in 2009, examining the ways in which her image was distributed, disembedded and disconnected in various diasporic contexts. I also scrutinise the construction of masculinities and Muslim identities and how these are articulated through gendered memory wars that arose in reaction to the ‘non-memory’ of the shooting dead by US SEALs of the Al Qaeda leader Osama bin Laden in 2011. As with the previous chapters, the analysis seeks to trace how gendered memory assemblages are mobilised and securitised in terms of gender across six trajectories of the global memory field.

Part III: Actions

The final part of the book examines the ways in which global stories may be gendered in new ways through conscious feminist memory work. Feminist activism and archiving have become part of a synergetic struggle within the global memory field, suggesting that digital memory is and will be an important part of ongoing feminist resistance to established inequalities within patriarchal societies. Chapter 8, ‘Global Stories, Feminist Memory Works’, brings together the themes of the book before examining a project in which I was involved as an advisor, and as a creative practitioner as a playwright and performer, with the Fuel Theatre company’s project *Phenomenal People* in 2013–2015. I examine the ways in which feminist memory may transform the legacy of gendered memories through tracing the mobilisations of memory assemblages from the project across the six trajectories of the global memory field.

The chapter concludes with a summary of the book as a whole and a consideration of the implications of taking a gendered approach to understanding

the global memory field. What broader implications should be reconfigured in terms of a critical and interdisciplinary understanding of the study of memory? What philosophical and epistemological developments and shifts within the field are implied by incorporating gender into an understanding of memory? Are there particular methods that are implied by a gendered approach to memory? What are the ethical implications of understanding memory from a gendered perspective?

In Chap. 9, 'Epilogue: Gender Recalled', I seek to put into practice some of the conclusions of the book through mobilising more consciously some of my own earlier work. I do this as an antidote to the patriarchal forgetting of the longer trajectory of work on gender and memory. Feminism continually forgets itself because both men *and* women repeatedly fail to actively mobilise and securitise the memories of women's intellectual research, as well as feminist artistic and activist work. It was an important part of Chaps. 2 and 4 to unearth some of this earlier theoretical and creative work. My own postscript reintroduces the reader to the genealogies of my earlier arguments and studies that laid the ground for this particular book as well as revealing how the work of the feminist writer, teacher and artist is disassembled and assembled. In this way this book and its earlier work seeks to contribute further work to feminist media studies as well foundational work for the emergent field of feminist memory studies.

KEY TERMS

The book creates and develops a number of new words and terms. The first term it coins and seeks to establish is the word and idea of the mnemologist. The mnemologist may be a scholar who works in the field of memory studies drawing on their knowledge of disciplines such as history, sociology, cultural studies, media studies, classics, religious studies, modern languages, international relations, and digital humanities. The mnemologist has a particular interest in memory and the ways in which cultural memory is articulated and mobilised, defining herself by working primarily within what is now memory studies. Just as in the 19th century a number of scholars, including Harriet Martineau through sociological studies such as *Society in America* (1837), were key to founding sociology—which led to the coining of the term sociologist for those who studied society—the mnemologist is one who studies memory in its various forms, drawing on different disciplines but also then seeking to develop new methodologies and forms of analysis, as well as new concepts. Hence, this book seeks to develop its own

concepts and forms of analysis as part of the active development of memory studies, and to extend the tools of the mnemologist.

The second word the book develops is ‘globital’ and, from this, the idea of the Globital Age explained through the concept of the ‘the globital memory field’. These terms are discussed extensively in Chap. 3, so their development need not be anticipated here. In choosing to use the word ‘globital’ throughout, rather than ‘digital memory’ or ‘digital global memory’ the book modifies and mashes together the word ‘global’ with the computing term ‘bit’, the basic unit of information in digital communications, to denote the synergetic dynamics of globalisation with digitisation in relation to memory in the 21st century.

In this way the study in and of itself, and the suggested areas of reconceptualisation, have a number of implications for media studies, gender studies and memory studies. There are specific implications suggested in terms of revealing some of the granular changes that digital cultures are involved with or implicated in the gendering of memory and memory and gender. Then, there are wider epistemological implications for collective memory, for media memory and for social memory, as well as forms of individual or personal memory that arise from reconceptualising memory in ways that integrate digitisation and globalisation. Ontologies of memory now always involve both globalisation and digitisation: for knowledge producers within the academy or within public memory institutions the vantage point is from within the nexus of these dynamics. Finally, there are fundamental paradigmatic implications for media memory studies and media studies more broadly, as well as gender studies in terms of rethinking our methods of analysis within a mobilities paradigm.

Nevertheless, like any book there will be gaps and flaws that the reader will be able to detect far better than I. There is much that I do not address and much that I am sure I could have done better. But work, like life, is at its best a wonderful relay and collaboration: and so I let this book out into the wild, and reassure myself in the belief that you as the reader will be able to passionately and critically address the book’s lacunae, flaws and weak spots and from those mobilise creative, innovative and knowledge-stretching work of your own.

PART I

Concepts

Gender, Memory and Technologies

The use of technologies to enhance human memory is as long as human development itself, beginning with the creation of systems of organisation of thought and carrying on through the design, recitation and memorisation of genealogies and stories that incorporated particular art and skills to enable continuities of oral memory.¹ Technologies of memory in early forms may be said to include the conversion of natural resources for human purposes: the mining and use of ochre to colour human bodies, the creation of tools to score the walls of caves, or the development of complex techniques to dry and weave vegetable fibres into forms and structures to aid the recollection of accounting, stories, and genealogies.² With capitalist industrialisation, the past 400 years witnessed the unprecedented acceleration of mechanised forms of mediated memory from the printing press to the invention of photography, from the recording of movement on celluloid film to the fixing of music on wax, Bakelite, vinyl and polycarbonate. With the advent of computers has come the transformation of documents, images, music and voice into electrical pulses coded as series of zeros and ones to provide new forms of storage, retrieval and distribution that are globally connected through data centres and personal computers, as well as mobile and social technologies.

Entangled with these developments are rapid changes in political organisation. Capitalist industrialisation was bound up with European colonialism and the emergence of the modern nation state, which gave

particular emphasis to connected ‘national consciousness’ and collective forms of remembrance. From collective grave sites and significant landmarks that hold the past or dreamtime, ‘an accumulation of technological innovations’ from map-making to print meant that ‘it became conceivable to dwell on the Peruvian altiplano, on the pampas of Argentina, or by the harbours of “New” England and yet feel connected to certain regions or communities, thousands of miles away, in England or the Iberian peninsula’ (Anderson 1983: 188). The past 300 years saw the further acceleration of institutional development of collective modes of organisation that include public memory institutions and museums, memorials for wars and acts of heroism, the state ritualisation of commemoration, public trials for truth and reconciliation, and state apologies. With late capitalism and economic globalisation and neocolonialism there are new forms of international remembrance and transnational forms of remembering.

Each shift in communication technology has interacted with human consciousness and memory in different ways: accordingly ‘we reconfigure our own mental architecture in nontrivial ways’ (Donald 1993: 382). In *The Gutenberg Galaxy: The Making of Typographic Man* (1962) Marshall McLuhan lucidly outlined several phases to new technologies each of which, in his view, revolutionised human consciousness: these he saw as the shift from oral culture to handwriting or manuscript culture; the shift from handwritten letters to mass print culture and the shift from mass print to electronic culture:

Instead of tending towards a vast Alexandrian library the world has become a computer, an electronic brain, exactly as an infantile piece of science fiction. And as our senses have gone outside us, Big Brother goes inside. (1962: 32)

However, with the advent of digital communication technologies, the internet, the computer, the mobile phone, there is a fourth shift in the latter part of the 20th century in human culture and technologies of memory.

While Marshall McLuhan focused largely on the technology of television, his work foreshadows to some extent the transition to digital and globalised cultures and also seemingly anticipates the geopolitical consequences of that technological shift (one of which we know in the 21st century as the ‘War on Terror’):

unless aware of this dynamic, we shall at once move into a phase of panic terrors, exactly befitting a small world of tribal drums, total interdependence, and superimposed co-existence. [...] Terror is the normal state of

any oral society, for in it everything affects everything all the time. [...] In our long striving to recover for the Western world a unity of sensibility and of thought and feeling we have no more been prepared to accept the tribal consequences of such unity than we were ready for the fragmentation of the human psyche by print culture. McLuhan, 1962: 32

McLuhan argues that there will be terror in a return to the tribal mindset of an oral society which he characterises in terms of the senses being externalised while concurrently ‘Big Brother’ penetrates into interior consciousness.

Yet, although there is a suggestion of a critique of patriarchal power imbricated in these societal changes, what is absent from McLuhan’s account, and that of most dominant studies on changes to human consciousness and communication technologies (Donald 1993; Leroi-Gourhan 1983)³ is an explicit understanding of how gender relates to media memory technologies.

Like McLuhan, I contend that technologies have consequences for human consciousness and memory in particular. But, unlike McLuhan, I argue that human consciousness is not determined by technologies but that the evidence rather suggests a more complicated picture in which everyday practices as well as active feminist consciousness may concurrently have consequences for those technologies: the uses, practices and expressions of mnemonic technologies are gendered and at the same time gender and gendered relationships interact with the domestic memory practices and technologies of women and men, thus modifying and domesticating them. As Terry puts it:

Try getting through the day without machines. Or, for that matter, try getting through a day without gender. The challenge in both of these propositions is not to do without technology or gender (since it is practically impossible to do so), but to analyse, by imagining for a moment that absence, what bearing these privileged systems have on all of us in terms of our hopes, dreams, fears and frustrations. (Terry 2013: 1)

In the 21st century human organic memory is inextricably tied up with the technologies of memory and technologies of gender: as Emily Keightley’s study of the technologies of television shows, the consumption and practice of particular programmes and the articulation of them through an audience facilitates particular gendered memories (Keightley 2014a).

In every epoch, through the creation of tools and machines but also techniques, crafts and modes of organisation, women and men have individually and collectively sought to enable the recording, preservation, curation, recollection and engagement with human activities and culture of the past, providing imaginaries for the future. These memory technologies are not discrete, neutral, autonomous objects, artefacts or practices but rather encompass relationships and exchanges (Calvert 2013: 2).

I am suggesting that it is not quite as bleak as McLuhan's argument, written in 1960, imagines. If the 21st-century digital phase transition involves the reintensification of and reconnection to technologies of memory that allow for and enable greater provisionality and multiplicity, then perhaps this might allow for Big Sister, as well as Big Brother, to be both within us and outside us. Like any other technology, memory technologies are not neutral: they embody relations of power arising from particular historical, political and economic circumstances (Calvert 2013: 2). Technologies of memory are implicated by gender, which is not inherently embodied or essentially fixed but rather is both the 'product and process of various social technologies' as well as 'institutional discourses, epistemology, and critical practices as well as practices of everyday life' (de Lauretis 1987: 2). Thus, there is the question of gender; then, there is the what and the how, historically, particular technologies are gendered in relation to memory; and the how and in what ways digitisation and digitality suggest radical processes of change or continuity.

Mnemonic technologies and gendered processes are also entangled within larger contradictory and uneven historical processes of colonisation and globalisation: take the following example of the mnemonic practice of keeping a diary by a Maori woman, Annie Maaka, writing in the context of the British colonisation of New Zealand. The example suggests that within the constraints of the genre, the chronologically linear diary, an imported Western cultural form articulated in the colonisers' English language, there are memories of gendered connections as well as cultural differences. Writing her diary at the beginning of the 20th century, Annie Maaka recorded the gathering, preparing and eating of food:

Wednesday April 16

Rained hard, stopped home made two plum puddings boys went round the Island stewed my pinny. Made a cake boys went fishing brought up a jelly fish and had a bit of fun pelting one another with it then I went over to Hannahs had a dance and end up with a game outside. Had supper went to bed. (Haami 2004: 90)

While Maori men made records of their work outside of the domestic sphere, fishing and transporting goods in their boats to trade (Haami 2004), the extracts from Annie Maaka's telegraphic and unpunctuated diaries convey a gendered domestic scene familiar to a Western reader—stories of plum pudding making and food fights—and yet she also recalls that which is unfamiliar to the Western reader:

Thursday April 17

Got up about seven, went out to work all hands had a bit of a riff caught 40 odd birds came home cooked dinner. Billy Woodcock came ashore told us all the news finished cleaning about 5 o'clock had a game went to bed.

Friday April 18

My birthday 20 today went out caught 50 odd birds Cara, Beaut & I had a bit of fun on the *manu* screaming etc. had a row with Hannah, finished cleaning about 5 cooked some groper for tea. Car, Beaut & I played John Tod and Charlie euchre. Beaut and I went in for a wade had a good swim. (Haami 2004, *my emphasis*)

The word 'manu' to Pakeha (non-Maori) is unfamiliar and dissonant: it alerts the reader to the ruptures between gendered memory and the technology of the word through colonisation. Bradford Haami notes, 'Maori often referred to letters as manu (birds) or waka (canoes), traditional forms of communication. These terms were used when an important statement needed to be sent: "Haere atu oku kupi I runga I te manu kawē korero" (Go, my words)' (Haami 2004: 23). Manu were also paper birds or kites. Thus in the Maori female diarist's work she articulates both the manu—the diary entries of her life—in terms of the manu (birds) that they catch to eat, as well as manu which also means 'kite'. The manu—as kites—were used for recreation, but they were also flown as forms of communication, providing the means to signal beyond the hilltops to other communities news of celebrations, births and deaths, as well as the capturing of new territories (Maysmor 2012). The meaning is uncertain, disrupted, contingent, moving between and betwixt, hovering and flying between both communication technologies—the letter and the bird/kite.

I use the concrete example of Annie Maaka's diary to make a wider point that the mnemologist needs to approach memory, gender and technology in the 21st century not only with a sensitivity to how both gender and memory technologies interact and are constructed but also with an attentiveness to how gendered memories travel and are mobilised between and by technologies configured through different colonial legacies that may, in the 21st century, include late capitalist globalisation.

Thus, in the analysis in this chapter I re-examine earlier studies on memory and communication technologies to begin to frame and critique the ways in which memory technologies have been conceived of within broader cultural and media theory as well as within gender and memory studies. I start by revisiting memory and technologies within early feminist theory and action, before moving on to more recent accounts of gender and technology in memory studies and cultural memory studies. This lays the analytical foundations for Chap. 3, in which I draw on the ways in which memory technologies have been conceived of within media and cultural studies, particularly in terms of digital technologies and globalisation. The objective is to build a new model for memory in the Global Age: the concept of global memory and the global memory field—which will form the overarching analytical and methodological framework for approaching gender, memory and digital cultures.

I begin with an intellectual archaeology, digging up and bringing into the light the history of some of the theoretical antecedents of the relationship between memory and gender, highlighting how technologies of memory are conceived of within earlier feminist texts.

MEMORY TECHNOLOGIES IN EARLY FEMINISM

If the Greek poet Sappho (630–570 BCE) were alive today she might well be characterised as a new technology guru. Sappho was able to state with great certainty: ‘The Muses have filled my life/With delight/And when I die I shall not be forgotten.’ The poet added ‘And I say to you someone will remember us/In time to come...’ (Sappho 2005). Sappho was not just being optimistic, she was, according to Jarratt, an early adopter of ‘new technology’: she wrote down her work on papyrus. At the same time, within her own poetry Sappho shows a keen awareness of the marginalisation of women’s lives in the 6th century BCE and the sense that women and women’s stories are forgotten (Jarratt 2002a, b). Perhaps this is why she ensured that her poetry was materially recorded using the mnemonic technologies of writing to mediate and preserve her poetic works. Most poets at that time handed down their works through a system of oral mnemonics, which meant that several millennia later their works have been lost. According to Andre Lardinois (2007) this is conceivably why a fragment of Sappho’s work endured over time and is with us today.

It is thus important, firstly, to pay attention to how memory is embedded within the particular technologies and technological practices of a

given historical period or epoch and, secondly, it is imperative to pay attention to how early feminists as artists, as writers, as educators and academics have adopted and adapted ‘new’ technologies of memory and the practices that go with them. The place of ‘new’ technologies of memory within theories of memory and feminist theories of memory are historically situated: they are also emplaced within particular geospatial territories.

Western feminist theories are themselves in part the product of the European Enlightenment which gave emphasis to formal education and the role of print culture derived from the advent of mass book production. This gave a sense of a public culture wider than that historically monopolised by the Church. Thus, the 19th century political theories in the US and Europe which advocated the right of women to keep their surname upon marriage constitute not only a struggle concerning a particular nominative problem of the individual, but also a struggle for recognition of the significance of the particular technology of memory that preserves family patriliney in public records, archives and registers. Once patrilineal genealogies are preserved publicly in this way, women’s natal history is individually and collectively, generation after generation, erased and forgotten. Hence, towards the end of the 19th century, the American feminist Lucy Stone continued to sign her name after marriage as Lucy Stone (Blackwell 2001; Kerr 1992).⁴

Women writers and early 19th-century feminist campaigners such as Mary Wollstonecraft argued that the social inheritance of Christianity contributed to the continuation of women’s oppression. The memories of religion carried through the Bible as well as through the practices of education were used by men in power to legitimise keeping women out of the public sphere. Wollstonecraft’s thesis was that the past is socially inherited through the technologies of the book and education, and that they mobilise literary and religious memories that are oppressive to women.

However, Wollstonecraft does not see either the technology of the book or the technology of education as *inherently* oppressive to women: she makes it clear that it is the uses to which these technologies are put that is crucial, not the technologies themselves. Such technologies, if used as a conduit for the right kinds of history and right kinds of memory (whatever they may be) can act as a force to liberate women. Wollstonecraft asserts that women have to be given formal education that includes a much broader teaching of history and knowledge of the public past. In a chapter on ‘National Education’ in *A Vindication of the Rights of Woman* (1985 [1792]) Wollstonecraft outlines what she sees as a key elements to what should be, in her view, a

form of coeducation for girls and boys. She argued that women had been kept in a state of ignorance which had prevented their progression, and this could be rectified by teaching history to boys and girls up until the age of nine. Beyond the age of nine, however, Wollstonecraft did not see any need to provide further education for all children. Rather, beyond this age the majority of boys would learn their trades; the teaching of history should only be for ‘young people of superior abilities’ who could be taught ‘the dead and living languages’ and ‘continue the study of history and politics’ (1985: 287). To Wollstonecraft, education of girls was not so that women could then work in the public sphere, but so that they could better fulfil their family duties: ‘women cannot be confined to merely domestic pursuits, for they will not fulfil family duties, unless their minds take a wider range’ (1985: 294). In her view, the technology of the book and the technology of education might be used to mobilise history and memory to help women better fulfil their established roles, but a deeper understanding should be preserved for clever, middle-class girls. What Wollstonecraft did not engage with was the question of how the technologies themselves might be gendered: the history books that the school uses might not necessarily include, for example, the history of women; the structure and practices of education might themselves exclude women’s voices.

In the 19th century, a critical understanding of the role of education, religion and literacy as technologies of memory and liberation for women was also being pursued by some Muslim scholars. Nana Asma’u Bint Usman ‘dan Fodio, for example, left a legacy of sixty works that included treatises on history, law and politics, as well as poetry. She developed a system of education for women in what is now northern Nigeria (Boyd 1997) in which women were taught historic texts, poems and the Quran, as well as key qualities that Nan Asma’u saw as essential to Islam:

there are women in the villages near Sokoto today who can recite these qualities. They say, ‘This is what Asma’u taught our grandmothers and what we continue to teach’—not only evidence of the part she played in the transmission of knowledge, but a testimony to the effectiveness of the educational system. (Boyd 1989)

What the work of Asma’u highlights are the ways in which mnemonic technologies are bound up with processes of colonialism and colonisation, which is not necessarily only a dynamic involving the West and Christianity. Prior to and concurrent with Christianity were other faiths, including older Celtic

religions in Europe and indigenous religions in the Americas and Africa, that held a central place for women within culture, politics and spirituality. In the case of Asma'u, her educational work, assisting women in the memorisation of the Quran and its values, was proselytising Islam to communities that had established indigenous religions of their own along with their own mnemonic technologies of ritual and dance to remember the lore of ancestor spirits and spirits of the land. Pre-Islamic, indigenous cosmology included strong female figures, accommodated women and men as priests, and revered the powerful figure of the Goddess Osun, who reminded believers that women were central to the creation of the world (Olajubu 2003: vii).⁵

These entangled relationships between memory technologies, gender, and colonisation or preglobalisation are, nevertheless, most evident in places where European countries, and Britain in particular, colonised large parts of the world in the 18th and 19th centuries. As already alluded to, the colonisation by the British of what subsequently was named New Zealand involved the capturing and writing down by Pakeha (non-Maori) of Maori histories, genealogies, customs and stories in ways that since have been understood as disrespectful and problematic (Haami 2004). This capturing and recording by the coloniser was also gendered: Western anthropologists were largely white and male, as were the judiciary who recorded land boundaries and land rights. Male colonisers tended to talk to male leaders, with the culture and stories of women increasingly marginalised. What is handed down within the technologies of writing, then, is largely the stories and genealogies of men in the colonised community. The pattern was repeated in other European colonial territories in Australia, Africa and North America, as well as in those territories in Latin America colonised by the Portuguese and Spanish from the 15th century onwards.

In the memory work of Victorian British feminist reformers, however, there is a more emphatic shift towards their active use of technologies to capture and mobilise women's memories. Western feminists in the last third of the 19th century began to use mass print technology as a way to document working-class women's lives that were not included in public histories of the time. In England, as part of a campaign by feminists to repeal the Contagious Diseases Acts of 1864, 1866 and 1869, Josephine Butler captured the life-stories of sex workers. She recorded stories of women dying from venereal disease and poverty in 'mini-biographies' published as 'The Dark Side of English Life' in *The National League Journal* and *Methodist Protest* in 1877⁶ (Jordan 2006; Starkey 2006). This marked a shift towards feminists taking control of the mnemonic means of

production, in this case print technology and more specifically the genre of biography, in order to generate records of women's lives and to include marginalised working-class women in public culture. This feminist memory work exemplifies a long genealogy (of which this book is also a part) within feminist theory and activism of deploying media technologies to document, store and mobilise women's life stories.

It is important to note that although there is the implication within this work of something beyond individual memory, this is not articulated explicitly. There is no explanation for the more complicated ways in which memories have a collective function, form and process that might then provide for continuities and disjunctures within patriarchal processes. However, as I shall show later in this book, it is imperative that memory is understood not only in its individual form but also in terms of its collective forms and processes, particularly since digital cultures blur the boundaries between the individual and the collective in new ways.

MEMORY TECHNOLOGIES IN 20TH-CENTURY FEMINISM

It is largely within 20th-century feminist work that there is the emergence of ideas of how micro and macro memories work together mobilising often contradictory and complex gendered identities. Simone de Beauvoir argued that it is the dominant remembered narratives of an epoch that generate women's oppression, as well as individual women's motivations and mobilisations against that oppression. Writing at the time of the Algerian War (1954–62)⁷ De Beauvoir examines the ways in which the collective punishment meted out to Algerian women, which included mass rape, was integrated as part of her own collective memory through the mediated witnessing of the press. The mnemonic technology that de Beauvoir herself uses is mass print and the written word framed within the mnemonic conventions of the genre of the memoir: through the use of this technological practice and using the ideas of Jean Paul Delay she draws attention to the subjectivity of women's memories articulated through sensor motor memory, unconscious memory and social memory (Lawson 2002: 385).

The work of earlier feminists laid the ground for a substantial body of work from Second Wave Western feminist literary historians in the 1970s and 1980s. They sought to recover the literary and historical canons and reclaim the memory of written and published works of women that are marginalised or have been lost to mainstream culture. Analytically, this work sought to explain the particular mechanisms operating in relation to

public memory or forgetting within the literary canon and to explain why women's writing vanishes from culture (Showalter 2009 [1982]).

The technology of the text and the forgetting of women's published work is thus explained by Joanna Russ in terms of patriarchy's eleven mechanisms of forgetting. The mechanism of 'false categorisation' (Russ 1983) could result in a feminist philosopher having her work only included under gender studies but not under general philosophy which would result in her work being forgotten within the field of philosophy. The mechanism of 'anomalousness' means that women's work is often lost through its being defined as not fitting in with the formal definitions of genre or modality (Russ 1983). For example, the autobiographical work of Holocaust victim Charlotte Salomon, entitled *Life as Theatre*, involved the use of multimedia along with written text journaling her persecution and repeated flight during the Holocaust. After the Second World War, Salomon's work was forgotten for decades until an exhibition at the Royal Academy in the 1990s (Salamon 1998). What is also significant is that the Global Age has enabled further dissemination of her work, since it particularly lends itself to being displayed on screen, because of its combination of watercolour and words (Salamon 1998).

Russ (1983) also argued that further mechanisms of forgetting within patriarchy included the 'denial of agency', where the work of women is either deliberately said by others not to belong to them or the social structure is such that women themselves internalise and practice the forgetting of their own work. Russ outlines eight other means through which women's published work is forgotten. These include the banning of women's work, prohibitions, bad faith, pollution of agency, the double standard of content, isolation, lack of models, responses, and aesthetics. Russ sums up these processes thus:

In a nominally egalitarian Society the ideal situation (socially speaking) is one in which the members of the 'wrong' groups have the freedom to engage in literature (or equally significant activities) and yet do not do so, thus proving that they can't. But, alas, give them the least real freedom and they will do it. The trick thus becomes to make the freedom as nominal a freedom as possible and then—since some of the so-and-so's will do it anyway—develop various strategies for ignoring, condemning, or belittling the artistic works that result. If properly done, the strategies result in a social situation in which the 'wrong' people are (supposedly) free to commit literature, art, or whatever, but very few do, and those who do (it seems) do it badly, so we can all go home to lunch (Russ 1983: 5)

Russ's work generated many subsequent empirical studies examining technologies of forgetting: Faith Beasley in her work on the literary memory of 17th-century France showed how gender is significant to the production of literary memory as well as its consumption (Beasley 1998); Lynne Hanley argued in *Writing War: Fiction, Gender and Memory* that in analysing memories and gender in literature about war we need to be attentive to the wider technologies involved in the marketing of books in which men's roles are valorised and promoted over those of women (Hanley 1991). A study by Neubauer and Geyer-Ryan emphasises the importance of paying attention to the dialogical and dialectical relationships between the text as a technology and the literary memory produced within it, which then in turn produce men and women's memories and identities (Neubauer and Geyer-Ryan 1997).

Other feminist work in the 20th century provided new mnemonic tools or practices, such as Mary Daly's 're-membering' to bring women's work back into the mainstream (Daly 1992). Sheila Rowbotham's *The Past is Before Us: Feminism in Action Since the 1960s*, captures how the mnemonic practice of consciousness-raising groups in the 1970s and 1980s enabled women, 'to remember their childhoods with new meanings'. Through that practice women were able to see how their personal memories had social and political dimensions that involved inherited historical social and family structures that were oppressive to women (Rowbotham 1989: 6). Towards the end of the study Rowbotham argues, 'what we remember, and how we remember, is not a matter of chance.' (1989: 206). It is, she argues, key to patriarchy; rebellion against it is the development of new codes and concepts (1989: 206). Rowbotham's work emphasises the importance of doing, the importance of action for developing and chronicling change. She also argues for the importance of personal narratives to allow for 'historical memories of resistance' to be passed on (1989: 206). It is in this spirit that I embedded in the 'Action' section of this book an autobiographical activist's example, to suggest how feminists' memories may be creatively mobilised through digital cultures. The feminist mnemologist in the Global Age needs to consciously use the new opportunities of the global memory field to create, record and mobilise stories of and by women.

While work such as that by Sheila Rowbotham sought to use the new mnemonic tools of consciousness-raising groups to elicit, develop

and mobilise women's memories and connect these to wider social structures, similar kinds of mnemonic innovations were occurring within feminist work that was more psychoanalytical in its approach (Felman 1987; Gilbert and Gubar 1979; Haaken 1998; Herman 1992). Nancy Chodorow's (1999) *The Reproduction of Mothering: Psychoanalysis and the Sociology of Gender* argued, as a corrective to Freud's emphasis on the role of the father, that the everyday relational practice of the daughter with the mother within the domain of the family served to reproduce particular memories of intimacy which girls and women then seek to reproduce themselves.

Other work within a psychoanalytical disciplinary framework went beyond critique and sought to mobilise marginalised aspects of women's memories, particularly in terms of sexuality, often inventing and innovating new mnemonic practices in the process. Frigga Haug in the 1980s developed the practice of 'memory work' in which women developed collective biographies working as a group to explore their identity construction and sexualities. Similarly, Janice Haaken's development of the idea of 'transformative remembering' (1998) enabled women to connect individual memories of sexual abuse to social and economic issues. Judith Herman's work made important connections between the forgetting of trauma by male war veterans and the forgetting of rape and abuse of women in the home (Herman 1992). Reavey and Brown's (2009) poststructuralist reconceptualisation of testimony foregrounded in new ways stories of ambiguity and ambivalence in relation to memories of sexual abuse which, they argued, were key to mobilising gendered memories of resilience and agency rather than victimhood and passivity.

To summarise, memory technologies and mnemonic practices within the different disciplines that inform gender studies are, I would suggest, generally approached in three distinct ways. First, memory technologies are explicitly analysed in terms of critiquing the ways in which they serve to forget women's memories. Second, this often goes hand in hand with research that then seeks to mobilise counter memories that place women and women's history and stories more centrally. Third, this sometimes involves the invention of new mnemonic technologies or mnemonic practices in order to mobilise counter memories of women or memories that are gendered in novel and equal ways. This is summarised in Table 2.1 [about here].

Table 2.1 Gender, memory technologies and feminism

<i>Epistemological approach</i>	<i>What this means</i>	<i>What this leads to</i>	<i>Key authors</i>
Implicit	Memory technologies are not made explicit to discussion of gender and memory	Memories are analysed at level of discrete symbolic meaning	No examples as feminist work goes beyond an implicit epistemological approach
Analytical	Technologies are critiqued	Critique seeks to show how women are forgotten	Wollstonecraft De Beauvoir Nana Asma'u Shawalter Russ Chodorow
Mobilisation	Technologies are used to mobilise memory	Mobilisation of counter-memories of gender and forgotten or marginalised memories of women	De Beauvoir Josephine Butler Rowbotham Haug Reavey and Brown Henderson
Early adopter or Inventor	New mnemonic technologies are radically adopted or new mnemonic practices are originated	New technologies are used to mobilise counter-memories in new ways	Sappho Daly Rowbotham Haug

GENDER AND MEMORY TECHNOLOGIES IN MEMORY STUDIES

The next part of this chapter examines how gender and memory technologies are understood in work that is largely situated within what has become known as memory studies.

Within studies of collective memory, which have their origins in the work of the sociologist Maurice Halbwachs, the family is the prime domain for the transmission of memories. Halbwachs (1992) noted in his heteronormative approach that women, unlike men, must ‘synchronise’ the memories of childhood with the memories of the family of her husband. The differential impact of the memory technology of the family for men and women is also referenced in the work of Orlando Patterson (2011). Patterson’s analysis of the memory of slavery argues that the slave suffered ‘natal alienation’ since she or he was removed from their mother and family

of birth. While the role of the family and the nation in relation to gender and memory are also explored in the work of other collective memory theorists, this is predominantly as discursive memory spaces rather than as memory technologies (Addams 2002; Grever 2003).

Much work on gender and memory within memory studies is concerned with individual and oral memory. Celia Hughes, for example, examines the uses of oral history interviews for interpreting the memories of men and women activists in the anti-war movement, the Vietnam Solidarity Campaign (Hughes 2013). Robert Gildea offers a new version of the activism of 1968 in France told in the oral testimonies of five activists whose stories demonstrate two different accounts: one account emphasises liberation, the other is against political violence and sexual excess (Gildea 2013). Similarly, Robyn Fivush in her work on remembering within family narratives argues that autobiographical memories are dialogically created with other family members in ways that are modulated by gendered models of the self (Fivush 2008). In her research on the Red Army Faction in the permanent exhibition in the German History Museum and in selected print media publications, Clare Bielby argues that the memory of women terrorists is feminised and pornographised as a way of delegitimising female suicide bombers in the context of 9/11 (Bielby 2010). Kim, in a study of over 500 Korean folk tales, argues for the importance of folklore as a commemorative technology that enables a woman's space to emerge between oral culture and literature: 'the folkloric genre is thus an antithesis of elite-orientated historical praxis' (Kim 2013: xx). This work discusses technologies largely as discursive practices and in terms of the technologies of language, the word and speech.

The valorisation of women's memories has also taken the form of mobilising forms of memory that women have used. Marianne Hirsch and Leo Spitzer, who examined how gender and memories of the Holocaust is articulated through testimonial objects, include a focus on recipes from Terezin and Vapniarka concentration camps. In this way, they show how the overlooked mnemonic practices associated with recipes and cooking were important to women in the camps (2006). Marianne Hirsch and Valerie Smith (2002) in their seminal collection for the journal *Signs* brought together key works that advocated women's memories as offering counter-cultural memories to the usual androcentric cultural memories that dominated culture.

This gynocentric work is mostly framed within national boundaries, with a concentration on how women's memories within a particular territory have developed and transformed, largely within the nation states

of Europe. Thus Paletschek and Schraut examine the particular cultures of remembrance found in different national situations in 19th- and 20th-century Europe: their collection addresses the evolution of monuments, and the exclusion of women from museums of war and conflict (Paletschek 2008). Largely, such studies do not pay explicit attention to the particularities of memories and technology or the affordances that different memory technologies may or may not facilitate within a different historical epoch.

The main lacuna within memory studies as it actively seeks to mobilise women's memories or feminist memories is that it does not explicitly analyse or seek to understand the role of mnemonic technologies and technological practices. An example is Kate Darian-Smith and Paula Hamilton's survey of memory and history in 21st-century Australia, which provides a showcase of research that includes analysis of gender as determinants in individual and collective memory making. They analyse women's memories of romance during the Second World War, giving new emphasis to the significance of subjectivity of gendered memory in particular sociocultural contexts, and also highlight Australian research on the political activism of war widows. But, while they argue for the significance of gender in work within the Australian scholarly context, they do not address the significance of memory technologies in relation to this, and pay little or no attention to mnemonic practices (Darian-Smith 2013).

NEW PARADIGMS IN MEMORY STUDIES

Digital cultures know no boundaries: they are hyperconnective and enmeshed within uneven processes of globalisation. Research that models a break with the dominant paradigm of studying memory in the context of a nation state is thus more useful to this study, as it seeks to understand gender and memory in the context of both globalisation and digitisation. Emergent gendered memory research, however, analyses memory beyond fixity and boundaries, focussing instead on that which is changing and moving, seeking to illuminate the ways in which gendered memory travels through the movement of people, material things and mediated memories (Didur 2006; McEwan 2003). Some of this research highlights the movements of peoples and gendered memories across shifting territories in relation to colonisation and occupation (Kassem 2011; Neguib 2009; Soh 2008). These postcolonial approaches enable recognition of the ways in which gendered memories may be articulated both locally and globally.

These studies are part of a broader paradigm shift within memory studies since the mid noughties that has shifted towards an epistemology in which collective, cultural or media memory is understood in various conceptual ways as moving between places and across temporalities. This has resulted in various concepts that seek to capture this state of flux and movement such as Astrid Erll's 'travelling' memory (2011), Michael Rothberg's 'multidirectional memory' (2009) as well as other terms to capture what are seen as 'multiple mediations' (Neiger et al. 2011); 'trans-cultural' flows (Bond and Rapson 2014) and the ways in which memories are 'transmedial' (Harvey 2015).

Rothberg's model of multidirectional memory enables a transnational view in which memories are understood to be mobile, with 'histories implicated in each other' (Rothberg 2009: 189). Rothberg examines in particular the relationships between literature and film, arguing that 'new forms of film and public memory take shape at the intersection of technology, aesthetics and the conjunctural politics of decolonization' (2009: 188). Rothberg contends that the model of multidirectional memory

allows for the perception of power differentials that tend to cluster around memory competition but it also locates that competition within a larger spiral of memory discourse... The model of multidirectional memory posits collective memory is partially disengaged from exclusive versions of cultural identity and acknowledges how remembrance both cuts across and binds together diverse spatial and temporal and cultural sites. (2009: 11)

Rothberg's model has opened up an important new paradigm that analyses the movement of memories across and between different domains and sites and across and between different timescapes. His work points to how gender may be articulated within this around the predictable clusters of the memories of men and masculinities.

However, part of the difficulty in all of the models that suggest movement and transformation is the enduring epistemological separation of public and collective memory from private and individual memories which, as we shall see in the studies in this book, is transformed through and with digital cultures. This has complex implications since, historically, the separation of the public and private, the individual and the collective has served to exclude and marginalise the memories of women generated from the familial and domestic sphere.

The model of multidirectional memory, I would suggest, also verges towards technological determinism. Rothberg argues that it was new

technologies that enabled the development of Cinema Verite in the late 1950s and 1960s to provide new kinds of testimonies that connected Holocaust memory with memories of colonisation in Algeria. Lighter more portable movie cameras with synchronised sound allowed for ‘film-makers simultaneously to be intrusive and to remain aloof’ (Rothberg 2009: 189). Multidirectional memory thus models a one-way view of how technologies, in this case film, may change, shape and impact upon what is remembered and how. Technology is largely characterised as determining human behaviour, rather than understood as practised within a nuanced space in which human behaviour may domesticate technologies and in turn change and adapt memory technologies through social practice.

Most ‘new’ paradigms of memory, as Garde Hansen, Hoskins and I have noted, while they do model movement and mobility, take as their principal technology the media of the written text or book situated largely within the film and broadcast era (2009: 3). Rothberg, as with other memory scholars, tends to ignore the digital media ecologies through which memory is now embedded and articulated. If digital media or digital cultures are referred to it is in terms of their constituting new and discrete media in and of themselves, rather than a technological shift that mobilises, connects and transforms legacy memories in new ways. Memory in the 21st century—in the Global Age—requires a further paradigmatic shift, a ‘fundamental reorientation to forge a model adequate to embeddedness of remembering and forgetting in digital media and in our sociotechnical practices’ (Garde Hansen, Hoskins and Reading 2009: 28).

It is towards the modelling of this new paradigm that I turn in the next chapter, seeking to forge a new concept and forms of analysis for memory work adequate to understanding the embedded nature of memory within digital cultures and globalisation in which gender is not marginal, or able to be put aside, but essential to its conception.

NOTES

1. Jan Assman for example, in his study of writing and remembrance in Ancient Egypt, Israel and Greece, makes the differentiation between cultural and communicative memory, and suggests that the former involves external technologies such as writing *Cultural Memory and Early Civilisation: Writing, Remembrance, and Political Imagination* (2011, 34–44). For a megahistorical overview of mnemonic technologies see Andre Leroi Gourhan (1993) *Gesture and Speech* and Merlin Donald’s (1983) *Origins of the Modern Mind: Three Stages in the Evolution of Culture and Cognition*.

2. Andrew Jones (2007) for example examines the relationships between memory and material cultures arguing that megalithic rock art and the practices of production that went with it enhanced the links between communities and the landscape. See Jones, A. (2007) *Memory and Material Culture*.
3. Merlin Donald in *Origins of the Modern Mind: Three Stages in the Evolution of Culture and Cognition* does mention in passing the significance of gender in relation to children's games, which he argues serve to reproduce gender roles (Donald, 1993: p. 174). Jack Goody (1987) in *The Interface Between the Written and the Oral* suggests in his analysis that there is a difference between 'the sexes' in the transmission in terms of oral and literate cultures that is reinforced through 'sex segregation' (1987: 269).
4. As a published and performed writer I determined to retain my birth surname 'Reading' after both of my marriages. But because Reading remains an inheritance of my father's line only, that thus excludes me and all women of my family, I have in the course of time denounced its patrilineal descent through changing the pronunciation of my surname from Reading (Red-ding like the UK town) to Reading (Ree-ding as in the verb to read a book). The act remains wonderfully disruptive to the extent that people sometimes tell me 'You pronounce your name wrong.'
5. The memory of an earlier central place of women goddesses and earth mothers prior to Islam and white people's slave trade in African people is explored in the African American writer Alice Walker's novel *The Temple of My Familiar* (1990).
6. The *National League Journal* and *Methodist Protest* campaigned for the repeal of England's Contagious Diseases Acts of 1864, 1866 and 1869 which allowed for the arrest and forced routine medical examination of women sex workers (See Jordan 2006; Starkey 2006).
7. The Algerian War (1954–62) marked a significant shift in French intellectual history and a reappraisal of its place within its colonial past. While the French government tried to win the hearts and minds of Algerian women colonised by France by promising them independence, French soldiers in their battle to suppress the FLN carried out mass rapes of women. Many writers at the time drew on the war as an example of challenges to the European colonisation of many parts of the world, which after the Second World War began to break down through various movements for independence, including that in Algeria which was met with strong oppression by the French state.

Global Memory

If Lot's wife fleeing for her life looked back on burning desert cities in the 21st century I suspect that she would no longer be immobilised into a pillar of salt, fixed in time and space to erode with the weather. Instead, Lot's Wife—with a name this time—let me call her Amza—would turn back, take out her mobile phone and make a video witnessing the violence and destruction. Her moment of mobile witnessing would be transformed digitally into zeros and ones and sent via mobile phone mast or GPS onwards through multiple trajectories, distributed through fixed data centres, mobile devices and people on the move around the world.¹

The story illustrates something fundamental to remembering gender in the Global Age: while Lot's Wife was unnamed and petrified, the imaginary 21st-century Amza is on the move. With this in mind, this chapter seeks to build a new model of memory, global memory, in which movement is integral to its analytical and methodological framework. In the previous chapter I critically examined studies derived from gender studies and memory studies that analysed previous technosocial phase shifts that provide some conceptual antecedents for thinking about gender, memory and globalised digital cultures. In this chapter, I add to this, drawing on studies on the history of media technologies and communication from media studies and the emergent field of digital cultural studies, to examine the particular insights these offer for rethinking memory technologies in

the digital age in relation to memories of gender and the gendering of memory. From this I build on work of scholars specifically in the subfield of ‘digital memory studies’ to develop the concept and methodologies for a model of global memory.

MOVEMENT AND FIXITY

As we saw in the previous chapter, media and technologies may alter human sociotechnical practices, consciousness and memory (Clanchy 1993; Hacking 1995; McLuhan 1962; Ong 2012). A number of studies explore the gendered implications of these revolutionary phase shifts: research on memory in ancient Mesopotamia suggests that when local religious practices were expressed through ritual and oral culture then women and men participated on equal terms. However, with the advent of the ‘new’ technology of writing, Babylonian society valorised male exploits and pasts over those of women. The names handed down in Babylonian society were those of men, recorded by male scribes (Yonkers 1995: 89). Women’s memories and contributions to society, their stories and histories were gradually erased (Yonkers 1995: 237). In medieval Europe, the shift to judicial processes being conducted through courts of law that formally recorded testimony led to the practice of women rarely being used as public witnesses (Van Houts 1999: 51). Elizabeth Eisenstein’s research on the changes wrought by print culture to human memory notes how printing presses and the techniques involved were handed down usually through the male line (2005: 187).

The shift from oral to written culture in Europe was entangled with the upheavals of the Reformation which involved the gendecide of the European witch-hunts between the 14th and 17th centuries. During these public trials, tens of thousands of, mostly, women were accused of witchcraft. Women were put on trial, tortured and then condemned to burning or hanging, with the word of the accused only believed after her death (Levack 2013). Walter J Ong’s 1982 thesis *From Orality to Literacy: Technologizing of the Word* (2012), in which he outlines the social impact of literacy and print cultures that changed human consciousness, misses the crucial fact that the written word and subsequent print culture was concurrent in Europe with a rise in misogyny and an overt process of silencing women, of which the witchhunts were the most extreme example (Levack 2013). What is also significant is that witches were and are² feared for ‘transvection’ or the belief that they have the ability to transport themselves from place to place in both body and imagination: such transvection was contrary to an Enlightenment culture that was in the process

of becoming more concerned with fixity and fenced boundaries within national territories: it was a culture and society increasingly unsettled by movement.³ The cultural impact of writing and mass print culture was, conversely, to fix the fluid, malleable, changeable memories of song, oral poetry and stories. The fixing of memory in the word written down, on parchment and then in mass print may also be understood as a technological practice entangled with the development of Western positivism in the 19th century following the Enlightenment. With Western positivism a new analytical culture ceased to give emphasis to rhetorical process and instead gave emphasis to pinning things down, to separating things out, to analysing thought, society, culture and science through a process of dissection.

While the Church disarticulated women's speech and devalued women's testimony, the particular mnemonic practices associated with the new technology of print culture that then followed the shift from oral to manuscript culture contributed to the marginalisation of women's stories and silencing of women's voices (Weber 2008: 176). With the printing press, gender and memory, 'Gender becomes increasingly central to processes of memorialization and the professional author central to the struggle for the mastery of cultural memory' (Weber 2008: 3). The printing press, as part of a commercial network of production and consumption, enabled men's manuscripts to be given wider circulation, but frequently left women's words stranded within the more private realm of the manuscript and hence subject to loss and erasure within the private collector's library. Weber draws on the work of feminist cybercritic Donna Haraway (1991) who foresaw how the blending of machine and organism heralded by computers was altering the consciousness of gender. Weber argues that it is important in the light of his findings on gender, memory and the printing press to examine more thoroughly the impact of the current revolutionary phase shift with digital connective technologies in terms of how they change the gendering of memory and memories of men and women's work and historical pasts (Weber 2008).

The next section thus considers the digital phase shift of the 21st century further, drawing on insights provided by theories of technology, digital and mobile cultures and globalisation to frame and model the idea of the global memory field and the analytical concept of global memory. As we shall see, global memory is modelled in what follows as an emergent concept and experimental analytical method for the mnemologist and those working within memory studies: it valorises (rather than fears) transvection both conceptually and methodologically to analyse memories of gender and the gendering of memory in terms of movement and mobilities, rather than giving priority to stasis and fixity.

TOWARDS THE GLOBITAL: GLOBALISATION PLUS DIGITISATION

The uneven but synergetic dynamics of digitisation combined with globalisation over the past 30 years points to the need for a new paradigm of memory because of the ways in which established dichotomies are rendered more porous and hyperconnected. Digitisation combined with mobile memory practices amplifies the movement of memories between the individual and collective, private and the public, communicative and cultural, energetic and material in new ways. Digitisation and hyperconnectivity through mobile devices, the internet and fast broadband access to some parts of the world's population, mean that the everyday and mundane as well as the dramatic and violent are recorded, captured, uploaded and shared in new ways: it means that archives that were once closed and inaccessible become open to those who are digitally connected; it means that public witnessing by journalists is also the domain of anyone with a mobile phone. And, it means that feminist activists as well as academics are given new tools with which to remember gender and recall women.

The process of knowledge production, as Geoffrey Bowker (2005) suggests, impacts not only on how we know things, but on what we know. Bowker contends that individual memory as well as collective memories are now produced through digital media, which means that our memories are increasingly globalised. It is thus the combination of digitisation with globalisation that is important to remembering gender: globalisation is simultaneously engendering new mobilities and mobilisations as well as new immobilities and enduring fixities of data, artefacts and people in relation to borders and infrastructures.

The emergent transnational memory work signalled by the work of Hirsch and Spitzer (2006) in their conceptualisation of 'post memory' very usefully enables an understanding of how memories cross time and space through different generations. A number of other key scholars have also argued for an understanding of memory in the global age (Chamberlien and Leydesdorff 2004; Conway 2008; Levy and Snaider 2005). The Holocaust has, through the mediation of its memory, become a global icon that also stands in for subsequent collective traumas (Assman 2010:⁴ 109). Such transnational memories and globalising processes may be understood in part as the intensification of earlier mobilities and connectivities: Jan Assman shows how globalisation processes in relation to memory go back at least as far as the translation of the memory of gods across territories in Ancient Egypt as a way of 'overcoming cultural and political boundaries'

(Assman 2010: 125). Digitisation and globalisation are increasingly understood to work synergetically, as shown with a study of the circulation and multiplication of the memories of the shooting dead of the Iranian student Neda Agah Soltan (Assman and Assman 2010). The rapidity and extent of her image's distribution throughout the world points to the necessity for a more robust form of analysis that enables the tracing of trajectories of memory, what I term here the transvectional method.

These processes of movement and porosity are then extended outwards from the borders of the organic individual as well as across national borders: media scholar Mark Posters' (2006) idea of the digital unconscious points to the ways in which the internal organic ideas of the self or personal memories are then extended outwards through the database. Posters' work resonates with the ideas put forward by Charmers and Clark (1998)⁵ who argue that the mind extends into the environments human beings inhabit. In turn, their work resonates with the idea of the global unconscious in the work of John Monk (1998) in which he foresees how code constitutes a globalised but elite language that operates at a level that the majority who interface with computers do not know or see.

However, although the computational transforms the scale and extent of consciousness this requires an understanding of the dynamics and agency of the human within it, according to N. Katherine Hayles in *My Mother Was a Computer*⁶ (2005). It is this immersive agential sense of the combination of globalisation and digitisation, along with the need to find a way to understand how memories move and are mobilised within it, that requires further analysis from a gendered perspective.

Although the significance of changes in technology in relation to memory has not been overlooked by mnemologists, more attention needs to be paid to emerging technologies of memory: arguably, what is remembered in societies both individually and collectively is largely dependent on the technologies of a given age and the particular sociotechnical practices that go with them (Van House and Churchill 2008). Anna Maj and Daniel Riha's (2009) *Digital Memories: Exploring Critical Issues* brings together a number of essays that for the first time tackle the specific topic of digital memory. The essays map how particular technologies are changing memory, such as the impact of the digitisation of audiovisual archives on the archiving of websites, the making of 3-D interactive biographies, and an analysis of how hypertext creates new connectivities. However, significantly what remains unanswered is the broader epistemological and ontological question of how memory is conceptualised and researched in the digital global age.

According to Van House and Churchill any approach to the subject of mnemonic technologies needs to take into account both the positive and negative impact of such technologies:

Embedded within much technological discourse is a Utopian, techno-centric belief in an infallible memory-machine, in contrast to a notionally capricious, context-dependent and therefore fallible human memory. As consumers and information users, we may be seduced by the promise that we can accumulate and store everything with minimal cognitive effort and within the confines of a limited (physical) space—while we are in love with information, we don't want it to take up much space cognitively or physically (Van House and Churchill 2008: 296).

They argue that digital memories and digitisation enabling rapid replication and distribution has led to 'profound shifts in how we conceptualise memory, our personal and collective archive practices and even our views of persistence and permanence.' (Van House and Churchill 2008: 296). The internet links a global network of distributed computers and data centres; these archive and store a huge range of text, music, television archives, and databases which is continually added to through mobile devices, satellites and sensors generating yet more stored data (Van House and Churchill 2008: 299). One of the biggest shifts, Van House and Churchill note, is that the growth in scale of digital matter that people have to deal with means that what were previously mediated memories that were privately stored and revered have become the digital staple diet of everyday production and consumption that is deemed ephemeral and temporary (Van House and Churchill 2008). Men and women in their everyday interactions with computing processes are continually recording something, whether it be communications via email, texts and posts on social networking sites or activities via digital calendars or bank accounts. Citing the work of Marshal (2008) who researched in the US what people do with their personal digital archives, Van House and Churchill (2008) maintain that developments in digital memory and the capacity to store memories offsite in data centres means that men and women store more and more memories rather than curating, editing or indeed deleting materials. In addition, men and women are immersed within a 'trackable society' in which everyday movements are traced and recorded through Radio Frequency Identification (RFID), chips in travel passes and ID cards, surveillance cameras and mobile phones linked to GPS. At the same time, a lot of that which is recorded and stored will become lost as changes

in software and hardware make the data inaccessible. This is in striking contrast to a Neolithic rock painting which may be rediscovered and reinterpreted many thousands of years later (Van House and Churchill 2008).

The increasing technologisation of organic memory means that media are not simply holders of memories but also transform and shape memories: Van Dijck (2007) in *Mediated Memories in the Digital Age* introduces the concept of ‘mediated memories’ to account for this ‘mutual shaping’ of memory and media, hence pointing to the dialectical relationship between the ways in which gendered memories may be shaped by digitisation, as well as digitisation may shape gendered memories and gender. The idea of mutual shaping is extended in Motti Neiger, Oren Meyers and Eyal Zandberg’s *On Media Memory: Collective Memory in a New Media Age*. They define media memory as ‘the systematic exploration of collective pasts that are narrated by the media, through the use of the media and about the media’ (2011: 1) arguing for a reworking of the Maurice Halbwachs concept of collective memory (1992/1925, 1980, 1950).

Andrew Hoskins takes this further with the idea of a ‘new memory ecology’ arising out of the processes of digitisation (2011b). He argues that the 21st century is not simply witnessing an intensification of collective memory or media saturation but, rather, this is a major revolution in which a new paradigm is needed to understand a world in which the ‘two ecologies of (of media and memory) are related through the co-evolution of memory and technology, most recently marked by the connective turn’ (Hoskins 2011b: 287). This idea is similarly developed by Joanne Garde-Hansen in *Media and Memory* (2011) as ‘connective memory’ although Garde-Hansen gives greater emphasis to the ways in which connective media are reshaping not only collective memories but also personal memories through the intensification of creative memories that people share with each other about everyday life and the milestones of life (2011: 149).

For this study, public and private memories, collective and individual memories are seen as inseparable and interconnected: empirically, I seek to explore how memory in the Globital Age travels from the micro to the macro, from the body, to the home and to the public sphere. In addition there are a number of further intellectual moves that I make with the concept of the Globital Age and globital memory: analytically these moves give less emphasis to stasis, to fixity and to the discrete, instead seeking to bring to the foreground the analysis of memories on the move across space and time, across established boundaries of self and the world and across different media, from the organic to the machinic.

GLOBALITAL MEMORY: CONCEPT

The neologism ‘globalital memory’ is used to denote the way in which memory in the 21st century or ‘Globalital Age’ has and is being transformed by the synergetic forces of digitisation and globalisation to produce an ecology of immersive connective memory on the move.⁷ The word *globalital* is coined from and brings together two words in English: ‘global’ with ‘bit’ which is the smallest contiguous sequence of data.⁸ The word in English when spoken phonically partially interrupts itself with the phoneme ‘bit’ breaking up while connecting the broken word ‘global’: thus the word phonically connotes the uneven, bitty nature of both globalisation and digitisation and suggests that the two forces are in dialectical tension with the properties of flow and fixity that are both material and energetic. At the abstracted level globalital memory is the gendered movements of data through the gendered fixity of hardware, codes, infrastructures, people, things and artefacts that mobilise and securitise the flow; within this there is the potential for the transformation of gendered memories and the inheritance of analogue gendered memories and techno-social practices.

Yet, globalital memory is not conceived of abstractly outside the human being, neither is it contained with digital devices as a memory prosthetic: globalital memory enters, incites and externalises memories of the interior of the organic human body and it extends to the known reaches of the universe through the return of the records of light from powerful telescopes recording the birth of planets and stars. Human beings in the Globalital Age are born and die within its unevenly connective field (some of us more so than others). In this sense it is not a memory aid outside of you or I: it is a media ecology that we inhabit at this moment modifying what Pierre Bourdieu describes as a ‘field’ of action and building on the idea of witnessing as a field suggested by Tamar Ashuri and Amit Pinchevski (2009):

the field of witnessing may then be seen as populated by agents occupying different positions and holding divergent abilities, interests and resources. Agents are equipped to play in this field by means of their habitual schemas or forms of know-how... each agent makes use of various resources available to him or her—political, symbolic, social, technological, or economic forms of capital—which are unevenly distributed across the field.’ (2009: 137)

In the globalital memory field, struggles are played out by various agents of memory. These agents may include individuals such as witnesses, therapists, survivors, activists and journalists, but also collectives such as museums,

heritage organisations and other public memory institutions, corporations, political parties, campaign groups, states and non-governmental bodies working at local, national and transnational levels seeking to mobilise and securitise memory capital.

As with Bourdieu's concept of field, the global memory field operates vertically and horizontally, and it is both energetic and material, involving mobilisations and securitisations of memory capital that are transmedial, traversing and transforming memories across established memory binaries. These memory binaries may include the individual and the collective, the digital and analogue, the local and the global, across planes that are electric, machinic, algorithmic, geographical, political, social, organic and psychic. In this way, global memory connectivities enable:

the capture and storage, management and reassembly of data records... reproducible across different media. Mediated memories of events may be personally and locally produced, before being rapidly emplaced within various local contexts. At the same time, all of these networked mobile-mediated memories are mediated through digitization, the process of encoding and decoding through binary code and the unseen social relations of protocol, algorithm and database (Reading 2011b: 243).

The processes of the field mean that memories within the global memory field are never discrete or singular but are better understood as memory 'assemblages' (Corbett 2000; Ellis 2010; Frosh and Pinchevski 2009b). Thus, drawing on Deleuze and Guattari's (1999) concept of 'assemblage', Frosh and Pinchevski (2009b) explain media witnessing in terms of an assemblage of representation, mediation and experience. Similarly, John Ellis suggests that any broadcast text within the configuration of new media is now 'an assemblage of communicative attempts' (Ellis 2010: 192). Whether image, text, or sound, global memories in the global memory field do not stand alone: they intersect with, connect with and disconnect from over timespace with other images, other sounds, other texts, other embodied subjects and discursive practices which may be digital and analogue (Reading 2014).

In *The Historical Dictionary of the Concepts, Expressions and Uses of Collective Memory* (2016) I define global memory as a new phase shift in human, cultural and collective memory arising from human beings' uses of digital media technologies that include mobile and social media through connective technologies within the context of uneven and differentiated

globalisation. Global is, though, not merely an adjective to modify the noun 'memory', or an adverb to adjust the actual processes of remembering and forgetting; it is a temporal adjective that may be used to modify and suggest a particular sociotechnical epoch as in 'memory in the Global Age'. Global can also be used to suggest temporalities that are multiple, intersecting and variable, as in 'global time'. Finally, in the context of this book and my other work, 'global memory' is used, and should be understood, as part of the broader theory of 'the global memory field'.

The global memory field thus penetrates the human body and extends to the far reaches of the known universe. All humans born in the 21st century are born into the global memory field: it is, in fact, part of human digital existence from before birth to beyond the end of life. Within the political economy of the global memory field connective resources and memory capital are unevenly distributed and are shared and fought over: global memories, involving energetic and material assemblages, are 'mobilised' by memory agents which may be individuals, groups or collectives. The global assemblage within the global memory field is an analogue–digital composition of material practices and discursive formations which are continually subject to change through the contradictory processes of 'mobilisation' and 'securitisation'. The term 'mobilisation' draws on social movement theory to suggest the ways in which agents of memory change, transform and move memories. The term 'securitisation' is not so much an opposite as a gravitational force: the term is intended to suggest the way in which individuals, groups or collectivities seek to remove threats to instabilities that may be personal, national or transnational by fixing memories to enable security. The term securitisation of course suggests, in this late capitalist epoch, the commercial practice of repackaging bad debts: thus securitisation of global memory also connotes a continual process of reassembling memories to accumulate memory capital that is (un)memorable.

The processes of mobilisation and securitisation in the global memory field are thus used to explain the continual struggle by gendered memory agents to simultaneously create and prevent both transvection and fixity of memory assemblages. Gendered global memories are continually assembled, disassembled, reassembled, shared, modified, adapted, added to, extended, moved between and across people, territories and media. At the same time, the gendered global assemblage is at moments locked down, fixed and policed at the boundaries by the labour of memory agents securing gendered memory capital within the domain of the individual, community, organisation, institution or state.

Global memories are mobilised within and between the local, national and transnational and across multiple domains (the media, museums, archives, literature, state memorials) with trajectories that blur the established binaries of the organic and inorganic, the individual and the collective; the private and the public. Global memory is thus also conceived of particularly enabling to a feminist approach to collective memory studies, since it provides for attention to be given to the disruption of established binaries and patriarchal knowledge making practices and concepts.

Over the course of half a decade through the evidence of a number of case studies I suggest elsewhere that these processes of securitisation and mobilisation in the global memory field are characterised by transformations across one or more of six dynamics:⁹ (trans)mediality, (trans)modality, extensity, valency, viscosity and velocity. However, reflecting on the development of those studies in this more detailed modelling of global memory I replace the term ‘dynamics’ with the term ‘trajectory’: trajectory captures more accurately the ontological significance of digital media which, although predominantly viewed through the framing of a screen, big or small, is polymorphous and without inherent form (Hansen 2004: 34). The idea of trajectory also has a number of clear and useful antecedents in memory studies: it is, for example, alluded to by Nancy Wood in *Vectors of Memory* (1999) in which she maintains that the media is a key element in the ‘erosion of temporal and spatial boundaries and increased global mobility’ (1999: 5). Wood draws on the work of Henry Rousso who in *The Vichy Syndrome; History and Memory Since 1945* (1991) analysed a range of cultural and political practices that he described as ‘vectors’ of public memory.

The most pertinent insights on trajectories in relation to memories, however, are those lucidly put forward by Barbie Zelizer and Karen Tenenboim-Weinblatt (2014) in the introduction to their collection, *Journalism and Memory*. They suggest that the two most central aspects to the acquisition of knowledge are the spatial and temporal dimensions through which memories develop. Trajectories, they explain, may be understood as the pathways that the body or projectile moves through space. This is in contrast analytically with ‘domains’ which signal the spatial aspects of memory, defined as fields of action, thoughts or influence ‘as they have evolved into some kind of recognizable form—in other words, space defined temporally’ (2014: 3). Trajectories offer a way of thinking about the unfolding between two or more points in time, whereas domains ‘drive a focus on the concentration of efforts in a coherent plane of activity at one point in time’ (2014: 3). Zelizer and Tenenboim-Weinblatt argue

that the study of memory may be considered through a set of procedures or approaches to reflect on these different spatial and temporal dimensions. However, they do not elucidate the kinds of procedures that may be used to analyse trajectories and domains.

Thus, in relation to modelling memory in the Global Age I suggest developing procedures or approaches for tracing and tracking memory assemblages through a number of trajectories and domains within the global memory field in order to analytically remember gender (or indeed other elements of memory) in the Global Age. The remembering of gender in the Global Age is to be understood through the ways in which the gendered memory assemblage is mobilised through trajectories which are nonlinear, uneven and often contradictory. Tracing memory assemblages in terms of trajectories reveals the oft-hidden, complex, different and contradictory ways in which distinct memory agents within patriarchy have greater economic, political and technological power to assemble, reassemble, securitise and mobilise gendered assemblages of memory.¹⁰

GLOBAL MEMORY: METHOD

In the final section of this chapter I outline a number of suggested analytical and methodological trajectories that may be used to approach the analysis of global memory. This approach is then used as a broad framework for the analysis in this book. Such modes of analysis are not exclusive, but may then be combined with legacy methodologies drawn from the arts social and human sciences to fully substantiate and triangulate data and feminist knowledge making.

(Trans)Mediality

Connectivity and digitisation enable memories to spread and change across media with greater rapidity and proliferation than in the analogue era (Harvey 2015). Colin B Harvey notes that, ‘Transmedia storytelling is all about memory. Characters, plots, settings, mythologies and themes necessarily have to be remembered from transmedia element to element in order for the various elements to be considered as part of the same story world.’ (2015: 38). Harvey develops the idea of ‘transmedia memory’ for accounting for the ways in which storytelling occurs across different media. His work builds on the earlier ideas of Janet Murray who, in *Hamlet on the Holodeck*, anticipates the ways in which stories with the aid

of computers may be told and spread through different media that include not just film, image and text but also toys, merchandise and tie-in games (Murray 1998). Colin B Harvey (2015) also draws on the work of Marcia Kinder (1993) whose approach to transmediality suggests the importance of not only how stories move between media but how they are intertextual and in dialogue with each other. Kinder's work anticipates that of Henry Jenkins (2008), who defines transmediality in terms of the ways in which a story develops across different media platforms which may involve legacy and digital media. Transmediality is distinct from adaptation in that each constituent part in each text contributes to the whole. The understanding of memory in the Globital Age is thus assisted by paying attention to the trajectories of transmediality: this enables the analysis of the way in which memories travel, are transformed and are dispersed into, across and through different media which may be digital or analogue.

(Trans)Modality

The (trans)modality of memory whether within legacy media or digital media is generally something to which little attention is given. And, yet, as with the transmedial, the transmodal, or the transition between different modalities and use of multiple modalities of memory is enabled and facilitated to a greater extent by digitisation and globalisation.

The idea of tracing the trajectory of (trans)modality derives from the work of the sociologist Anthony Giddens (1984: 29): his theory of structuration sought to bring together the individual and society working recursively with each mutually producing the other. Part of Giddens's theory of structuration included reference to the idea of modalities which he saw as crucial to explaining processes of societal structuration:

What I call 'the modalities' of structuration serve to clarify the main dimensions of the duality of structure in interaction, relating the knowledgeable capacities of agents to structural features. Actions draw upon the modalities of structure in the reproduction of systems of interaction by the same token reconstituting their structural properties (Giddens 1984: 28).

In structuration theory, modalities explain the properties of the structure: with globital memory theory tracing (trans)modalities help to alert the scholar to changes in gendered properties that may include rules and resources that place particular limits and/or possibilities on the way in which

memories may be mobilised by memory agents. In structuration theory, Giddens (1984: 29) suggested that individuals with the right knowledge could deploy resources to change what a given structure might otherwise have restricted. An example, which I explore in detail in this book in Chap. 5, is the way that parents to be use their knowledge and expertise of how to mobilise digital memories (their affordances to use a mobile phone, to use social media platforms for example) to take sonographic image of the unborn foetus that they are given in a hospital out into the world and beyond. They thereby shift the modality of the medical procedure that generated the image-memory as part of an obstetric sonogram.

Another example of how modalities structure memory would be the making and sharing of digital video of a wedding for family and friends that is uploaded to YouTube. The family member or friend has the knowledge of how to make a video and to upload it: but, if the home-made video includes music that is copyrighted, the video memory may be subsequently removed by YouTube. The memory in the video will be structured by YouTube according to the modality of the intellectual property rights of the music, rather than the intellectual property and modality of the wedding video.

Within the concept of the global memory field, as we shall see in subsequent chapters, tracing (trans)modalities of gendered memories highlight how memory agents within the field may enable and block movement from one modality to another as well as creating generative contradictions between modalities.

Extensivity

The combination of digitisation and globalisation theoretically enables the rapid circulation, sharing and thereby extension of memories through the global memory field. In its simplest sense and in my earlier work on the global memory field I suggested that to trace the extensivity of the memory assemblage involved exploring the ways in which it travels from its point of origin. However, as Edward Said (1985) suggests in *Beginnings: Intention and Method*, the beginning of something is not the same as something's origins and this is especially important with cultural memory (Potzsch 2012: 1). A beginning, argues Said, suggests the start of meaning within a frame of reference, whereas the origin of something is far more elusive in terms of meanings (Said 1985: 5).

To trace the extensity of a memory assemblage is, therefore, to be analytically attentive to the point at which the assemblage begins to gain meaning within a frame of reference. This enables a critical distinction to be made between digital assemblages that gain no traction, such as the multiple images of almost the same moment in time taken on mobile phones, and the one image that is selected to send on to family and friends via social media or and that is materialised in print for example to make as a special gift for grandparents (as discussed in Chap. 6) or the one witness video or image uploaded to social media that gains global traction through the mass media (as we shall see in Chap. 7). Extensity is also multiple: it is not a straight line from the beginning of meaning to an endpoint: the combination of digitisation with globalisation enables multiple extensities. What is then particularly telling is when extensities are compared across temporalities; the ways in which, for example, the gendered memory assemblage may or may not gain more traction over time or in different epochs.

Velocity

At its most basic level one could define and trace velocity as the speed at which a memory assemblage travels through the global memory field. Thus in an earlier essay (Reading 2011b) I compare and contrast the speed with which the Battle of Waterloo was witnessed and entered newsprint prior to the introduction of electric telegraph in the 1850s with the speed of the digital witnessing of the shooting dead of Neda, an Iranian student shot by security services in Iran in 2009, whose death was captured on mobile phone video. While the first took four days to reach *The Times* newspaper, the instant of witnessing the death of Neda and its mediation took minutes and then just a few hours to enter the public domain and circulate through news media around the globe. However, in developing the idea of global memory further in this study I suggest it is important to extend this basic definition of the trajectory of velocity simply as tracing the speed of the assemblage: instead I suggest a more complex view that eschews the assumption that digitisation in the 21st century necessarily means that memories will move more quickly.

Research on time and temporalities prior to the internet certainly argued that what was being witnessed with modernity was a collapsing of time (Harvey 1990: 54), with that which travels at speed within modern cultures assumed to have more power (Virilio 1986). Yet, in the context of digitisation, with the development of globalised culture of multiple

temporalities, velocity is proving to be more complicated (Keightley 2013; Reading 2013a). To trace the trajectory of velocity is therefore to trace alterations or changes in the speed or temporalities of a memory assemblage, the slowness of an assemblage as well as its rapidity; it is also to trace multiple trajectories or flights of memories with multiple velocities: as the philosopher Michel Serres reminds us, temporalities may be folded, chiasmic or discontinuous (Serres 1995). An example would be tracing the speed with which one is able to access a digital reproduction of Australian rock art. It may take seconds to call up a colour reproduction on screen via computer by searching through an engine such as Google ‘images of rock art’ but the image you and I view is also reliant on a much slower velocity of mineral extraction to produce the original *in situ* rock art and the current political economy of mining rare earths to produce the red image on screen using highly refined Europium (Reading and Notley 2015). Taking this more complex approach to velocity and temporalities means we understand in more depth what Suzanna Radstone (2007) has termed the sexual politics of time and memory, revealing the continuities and discontinuities as well as the contradictory processes of remembering gender in the global age.

Valency

Valency is a term borrowed from chemistry and refers to the ways in which an element will have differential power to combine with other atoms to form chemical compounds. The valency of memory is the extent to which it is able to be linked or combined with other memories. Within the context of global memory it refers to tracing stasis and change in the number of ‘sticky points’ that an assemblage may have with other memory assemblages. This can reveal the differential opportunities or restrictions that digitisation and globalisation offers to the remembering of gender. An example is the way in which with digitisation, the memory of the Roma Holocaust, which was largely forgotten and marginalised to a subset of memory in relation to Romany peoples, has, with the global memory field, developed many more sticky points with the cultural memory of the Nazi Holocaust, now having strong valences with Jewish memory and the Shoah (Reading 2013b). In addition, the global memory field has afforded additional sticky points between the cultural memory of the Roma Holocaust in World War II and Romany women and men’s earlier victimisation as enslaved people within Europe. This was little-known within European memory cultures until the possibilities offered through digital connectivity, but is now forming part

of a stronger narrative of Roma history and memory (Reading 2013b). Tracing the valency of a memory assemblage is thus analytically a way of reading more closely its strength or weaknesses in relation to other memories, stories and narratives about the past.

Viscosity

Analytically linked to the trajectory of valency is the question of a memory assemblage's viscosity. Etymologically, the word 'viscosity' derives from mistletoe, *Viscum album*, the berries of which were used to make a viscous glue, known as birdlime, which was applied to twigs to catch birds. The viscosity of a liquid generally refers to its power of resistance to change: the mobility or solidity (thickness) of liquid. Liquids less thick than water are said to be more mobile; those thicker are said to be viscous and less mobile. Assessing and tracing the changing nature of the viscosity of memory assemblages within the global memory field is thus a way of thinking about processes of flow and flux more critically. Zygmunt Bauman (2000), for example, suggests that modernity is liquid; yet the liquidity of memory within the Global Age, will also involve what Anna Tsing (2005), in her ethnography of the global connections of commodities, sees as 'friction'. Thinking about viscosity thus analytically involves tracing the friction and flows of memories; being attentive to the extent to which memories may flow or become thickened reveals, as subsequent chapters in this book argue, the unevenness of the global memory field. Global flow suggests that memory agents are able to deploy resources to mobilise memories but also that those memories are in continual state of flux and change. In contrast, some global memories may become viscous and thickened—with memory agents purposefully seeking to stick or trap memories, like a bird on the birdlimed twig, to securitise them in their interests: this may in turn generate friction that may in turn generate the flight of further contested and differentiated memories.

Each trajectory of a memory assemblage in the global memory field may be traced singularly or polylogically in various combinations to elucidate and illuminate the ways in which gender is remembered. Each trajectory raises its own kinds of questions for remembering and recalling gender; this is pursued in more detail in relation to particular domains of study later in the book. I pursue and ground the theory of global memory and its methodology through various empirical studies that begin with the human imagination and end with the ways in which feminisms are mobilising memories within the global memory field. I summarise gender and the trajectories of the global memory field in Table 3.1 [about here].

Table 3.1 Summary: gender and the trajectories of the global memory field

<i>Trajectories of the global memory field</i>	<i>Definition</i>	<i>Comparative legacy memory technologies</i>	<i>Questions for gendering of global memory field?</i>
(Trans) Mediality	The manner in which gendered memory assemblage travels, is transformed and is dispersed into, across and through different media	Particular media technologies have historically marginalised women's memories and produced other intersectional inequalities in memory terms, e.g. oral to written; written to published; written to visual	What new kinds of transmedia memory possibilities are made possible through global memory field? What implications does this have for gender?
(Trans) Modality	The extent to which memory assemblage travels and is transformed across sets of patterns or categories assert or deny the possibility, impossibility, contingency, or necessity of content	Particular modalities of memory in legacy media era deny women's veracity, e.g. testimony	What kinds of transmodalities occur within the global memory field? Do these provide for new kinds of affordances for the gendering of memory?
Extensivity	The limit and reach of memory assemblage from the beginning and/or historical origin)⁴	Public and private; communicative and cultural conventionally bifurcated through legacy media. Cultural memories of men and masculinities within legacy media more extensive.	What new kinds of extensivities are offered by the global memory field? How do these provide for more equal representation? What is the effect of public sharing?
Velocity	The multivalent speeds and temporalities with which the assemblage travels across the dimensions of the field	Legacy memory technologies slower to witness events, e.g. story of London bombing of 1897	Does global memory field enable more rapid forms of media witnessing as well as multiple temporalities? How does this change the gendering of memory?

(continued)

Table 3.1 (continued)

<i>Trajectories of the global memory field</i>	<i>Definition</i>	<i>Comparative legacy memory technologies</i>	<i>Questions for gendering of global memory field?</i>
Valency	The extent and manner of changing bonds between the assemblage and other assemblages	Women's memories and feminist memories often left 'unstuck'	How does global memory field enable more attachments to other memories?
Viscosity	The extent and manner of the gendered memory assemblages resistance to friction and flow resulting in change or stasis	Cultural memories within legacy media are more stable and fixed	How does the global memory field enable greater change and adaptation, iterative variety and nuance? What are the implications of this for gendered memory?
Axes	x = composition of material and discursive formations y = mobilisation and securitisation	Women's memories often demobilised within hierarchy of legacy media	Within the global memory what new kinds of mobilisations and securisations are made possible? What is this doing to the gendering of memory?

Edward Said (1985) suggests that the beginning is the start of meaning within a frame of reference, whereas the origin of something is far more elusive in terms of meanings (1985: 5)

In Part II, 'Domains', I explore the gendering of memory and memories of gender in the Global Age through empirical data generated by conventional and established modes of analysis that include literary and image analysis, autoethnography and qualitative interviews, combining this with the transvectoral analysis outlined here that provides a consistent set of procedures for tracing the mobilisations of gendered memory. I take the reader through a number of domains of memory, beginning with the domain of the imagination and working outwards from that to the domains of the body, through the home and outwards to the public. I complete this study by examining my own artistic practice within a project involving the mobilisation of feminist memories in the Global Age.

The model of the global is what Deleuze and Guattari (1994) in *What is Philosophy* call an emergent concept in a process of becoming: it is an experiment in terms of developing and using an analytical method with a

mediated mobilities paradigm as well as an experiment in thought in terms of developing a mediated mobile memory concept. The objective of this book is to seek to understand more fully and in more complex ways how gendered memories and memories of gender are on the move and being transformed or remaining the same within media that are connective, digital and unevenly globalised. In the next chapter, ‘Global Utopias’, I deliberately disembody the reader and my own vantage point on these domains by first taking the reader on a utopian transvectorial journey into the past, while thinking about the future: I travel into the domain of the literary imagination to examine the ways in which gender, memory and technologies have been imagined in past accounts of the future.

NOTES

1. The reference is to the Biblical story in Genesis, ‘Escape for thy life: look not behind thee... but his wife looked back from behind him, and she became a pillar of salt’ (Genesis 20: 15, 23–4). Hence, when witnessing the violent destruction meted out by a male God, Lot’s wife was petrified. She remains nameless, transformed into inanimate salt for the ‘disobedient’ act of bearing witness, while Lot lives and is remembered by God. In *The Social Inheritance of the Holocaust* (2002) I also open with the story of Lot’s wife and suggest its significance as a mnemonic for understanding memories of gender and gendered witnessing. Janice Haaken has also noted the important legacy in the story to understanding the place of women in memory (1998).
2. Dianne Purkiss (1996) argues in *The Witch in History: Early Modern and Twentieth Century Representations* that the historical and contemporary representations of witches are part of witches in society as a continuous living culture.
3. Prior to the internet, the broomstick was viewed as a much-feared communication technology, largely controlled by women, although Heinrich Kramer ascribes the actual power of movement to the Devil. One of the key ways of identifying witches in *The Malleus Maleficarum* or *Hammer of Witches* written by Heinrich Kramer in 1520 is in terms of their ability for ‘transvection’ or movement. The manuscript spends most of its third chapter discussing how witches are able to move both in body and in imagination through using a potion put on their broomsticks that allows them to cross vast quantities of land in the day or night. Thank you to Joanne Garde-Hansen for making the connection between witches and movement during the Liquid Memories workshop at Kings College, June 2015.

4. Note that I include the first letter of the first name for the Assmans in order for the reader to readily distinguish between the three different authors cited here,
5. For further elucidation of the idea of the extended mind see Richard Menary's (2010) collection *The Extended Mind*.
6. *My Mother Was a Computer* derives its title from the fact that prior to mathematical computations being done en masse by machines, these were done mostly by women, one of whom was N. Katherine Hayle's mother (Hayles 2005).
7. The word globital is now a dictionary entry in *The Historical Dictionary of the Concepts, Expressions, and Uses of Collective Memory* (2016).
8. In 'The Globytal: Towards an Understanding of Globalised Memories in the Digital Age' (Reading 2010b) I use the term 'globytal', which refers to the longer sequence of six bits of data. 'Globital', however, works better in terms of semantics and, as Andrew Hoskins pointed out at the Digital Memory (Salzberg, 2009) Interdisciplinary Net Conference in Salzberg, is easier to pronounce.
9. For a more detailed critical summary of these earlier studies and their actiology in relation to this book, see Chap. 9 'Epilogue: Gender Recalled'.
10. Indeed, John Downey reminds us that John Urry's original call around mobility was also to address mobilities of ideas. Downey argues that if we have a history of concepts, then why not also 'geography of ideas and images'. He calls on us to map ideas using a process of image geographies: 'Mapping image geographies is a useful first step but we must also, of course, explain why ideas and images migrate or note, their relative mobility or immobility and this requires a geo-political economy of images' that can help us rethink the concept of the public sphere which has become overused and tired. (Downey 2014) Thus, I would add to this that what we also need are memory geographies that help explain how particular memories are mobilised, travel and migrate as well as those that seem to be stuck or remained static. And that we develop particular ways of using the technologies of the digital to understand digital memories themselves.

Global Utopias: Imaginaries of Gender, Memory and New Technologies

As a teenager my study of sociology was accompanied by the avid consumption of utopian fiction. Sociology and utopian fiction have long established connections, most notably through the concept of ‘the sociological imagination’ developed by C. Wright Mills in 1959 (2000). Imagination in relation to memory was largely neglected in memory studies, until Keightley and Pickering’s the ‘mnemonic imagination (2012). By extension, this chapter suggests that the *feminist* mnemonic imagination is important for the emergence of feminist memory studies, and, in the Global Age and for preceding epochs, is a critical starting point for revealing the complex dynamics between gender, memory and technologies.

This chapter asks how gender and memory is figured in the human imaginary at significant historical transition points connected with the invention of new mnemonic technologies. The research explores the significance of human imaginaries in relation to gender and technology, tracing the journey of the manner in which memory, gender and new technologies are narrated and imagined within the domain of literary utopias from late medieval or early Renaissance fiction, such as Thomas More’s *Utopia*, through to 20th-century exemplars such as George Orwell’s *Nineteen Eighty-Four* and Marge Piercy’s feminist utopia *A Woman on the Edge of Time* (1979).

The research suggests that that how writers in society imagine the future uses of new media and communication technologies and the technosocial memory practices related to them through different art forms and scientific discourse is important to any present understanding of gendered memories and memories of gender. How the future is imagined is an articulation of a present moment, as much as it is of the past. Utopian imaginaries in literature, in particular, provide a discursive time space template or what Bakhtin terms a ‘chronotope’ (1981: 84)¹ for analysing historically collective human fears and desires for how technologies may enhance human memory and extend it beyond the individual and organic.

This chapter analyses a selection of key literary texts that present utopian or dystopian visions of technologies of memory in imaginary future worlds. In particular, I focus on the domain of literary works that were written at times in European history when mediated memory was undergoing profound changes. Each chosen text was written during a marked period of transition associated with the invention and social uptake of new media technologies within a European context: firstly, I examine the move from oral to print culture enabled with the invention of the printing press in Europe in the late 14th century; secondly, the transition from solely print to print and electronic media with the development of broadcast and televisual media in the early 20th century; thirdly, I focus on the transition from electronic media to hypermedia with the impact of computerised technologies on everyday life since the 1980s.

The analysis begins by examining imaginaries of gender, memory and technology in medieval utopian literature, beginning with Christine de Pisan’s *The Book of the City of Ladies* (1405) and Thomas More’s *Utopia* (1516). These early imaginaries offer chronotopes written prior to subsequent connective technologies that included the advent of canals, railways, and telegraph as well as photography, film, radio and television. Significantly, *The Book of the City of Ladies* was written prior to the advent of the mass printed book, while More’s *Utopia* was written shortly after. The chapter then moves on to the mid 20th century to compare this with imaginaries in George Orwell’s well known dystopian vision of the future published in 1949 but set in the imaginary future world of 1984. This canonical book imagines a dystopian future in a state of perpetual war, in which the party elite live drab and repetitive lives that are continually under surveillance and in which knowledge of the historical past is continually rewritten to suit the political expediency of the present.

Nineteen Eighty-Four was selected because it offers particular insights into a chronotope written on the cusp of the mass commercialisation of broadcast technologies and television in particular. I link this well-known text to two largely forgotten classics written around the same time by the feminist author Katherine Burdekin: *Swastika Night* (1937/1985) which has a very similar plot to the well-remembered *Nineteen Eighty-Four* but with a very different imaginary in terms of gender in relation to technologies, and *The End of This Day's Business*, written in 1935 but not published until 1989. Finally, I focus on imaginaries at the cusp of the Global Age through examining a feminist classic first published in 1979 by Marge Piercy, *Woman on the Edge of Time*. This work, like *Nineteen Eighty-Four*, imagines a future at war but one in which androgynous men and women live free and gender-equal lives positively augmented by new media memory technologies, most notably 'the Kenner', which anticipates the mobile phone in terms of its connective and immersive memory capacities. Piercy's utopia was chosen as an avowedly second-wave feminist text which just precedes the internet, social media and mobile technologies which by the first part of the 21st century have become part of everyday life in the industrialised world. The chapter begins by framing this analysis through a discussion of why and how a study of utopia and the imaginary is an important transvectoral feminist strategy in terms of the methodological approach of this book and more widely for memory studies and feminist memory studies. Studying imaginaries, I argue, provides a creative vantage point for Part II, 'Domains'.

UTOPIA AS METHOD

Some of the most famous literary utopian creations are by H.G. Wells, who wrote *A Modern Utopia*, published first as a series in *The Fortnightly Review* and then as a novel in 1905. The sociologist Ruth Levitas (2013) reminds us that these imaginative literary works and the creative process involved in writing them was thought by H.G. Wells to be the proper method of the sociologist.

There is no such thing in sociology as dispassionately considering what is without considering what is intended to be. I think, in fact, that the creation of utopias is the proper and distinctive method of sociology. Sociologists cannot help making utopias, though they avoid the word, though they deny the idea with passion, their silences shape a utopia. (Wells 1914: 2014 Cited by Levitas 2013: 88)

Building on this, Levitas proposes in the book's fifth chapter using the study of utopias as an imaginary reconstructive analytical method in the study of society (Levitas 2013). She argues that the reflexive process of a character within a utopia conventionally being depicted as going back to the reader's own time allows for 'the very essence of the sociological imagination' to analyse the structures and values of the present (Levitas 2013: 80).

Similarly, Thomsen in his literary analysis of 'the new human' argues that what is evident in imaginaries of technologically enhanced humans—especially within literature—are our fears and hopes of technological enhancement in the present. Thomsen argues that analyses of such imaginaries are important because such speculations increasingly move from science fiction into what can be seen as 'a realistic scenario for the future' (2013: 1). Levitas suggests that what H.G. Wells points to, along with sociologists such as C. Wright Mills with his concept of 'the sociological imagination' is criticality through rendering knowledge imaginatively (Taylor and Levitas 2011).

Wright Mills defined the sociological imagination as 'The application of imaginative thought to the asking and answering sociological questions.' Someone using the sociological imagination 'thinks himself away from the familiar routines of daily life.' (Wright Mills 2000: xx). He offers particular insights into the connections between imaginative thought and remembering the past in a chapter titled the 'Uses of History'. Significantly, he argues that the social scientist should deal with matters of history, of biography and the ways in which these intersect with social structures (Wright Mills 2000: 175). He proposes the sociological imagination as a way of revealing hidden or tacit power in society. However, he cites almost entirely works by 'great men', and while he momentarily struggles in the 'Uses of History' to acknowledge changes in what he terms the 'family' and 'fatherhood', he does not apply his sociological imagination to questions of gender or race. Indeed, what is evident in his work is a lack of intellectual self-reflexivity in term of understanding how his own sociological imagination is fettered within a male-biased or androcentric genealogy.

In contrast, Vicki Bell in *The Feminist Imagination: Genealogies of Feminist Theory* advocates that 'being alive to how feminist thought sits in relation to the past ways of thinking about the phenomena that constitute feminist concerns is not merely an exercise in thinking about the past' (1999: 6). Bell contends that feminist thought involves a commitment that is contemporary and, at the same time, 'historical' and 'futural' (1999: 6). Similarly, Barbara Taylor, in tracing the genealogy of the feminist imagination through the work of the 18th-century advocate for women's rights Mary Wollstonecraft,

conceives of the work of the feminist imagination as offering the scholar a particular method for intellectually rethinking and reconceiving present inequalities. The feminist imaginary offers a critically reflexive

dual reference to conscious reasoned creativity—the sort of mental inventiveness that, in the political arena, gives rise to revisionary theories, reformist strategies and utopian projections—and to the implicit, often unconscious fantasies and wishes that underlie intellectual innovation. (Taylor 2003: 4)

Although these feminist accounts rectify the intellectual lacunae of Wright Mills (2000) work and stress the importance of the work of feminist genealogy in relation to the imagination, they do not sufficiently articulate the dialogical relationship of memory with imagination or why it is that the process of remembering and processes of imagining may be linked in the feminist imaginary.

The conceptual bridge is to be found in this regard in Emily Keightley and Michael Pickering's *Mnemonic Imagination: Remembering as Social Practice* (2012). Keightley and Pickering argue that, historically, within discourse memory and imagination were rendered separately from each other, with memory attached to values of veracity in relation to the past, and imagination attached often pejoratively to suspect ideas of fantasy seen as divorced from truths that relate to the real world (2012: 2). Remembering, however, may be understood as a creative process which 'is what is denied when memory and imagination are cast asunder' (Keightley and Pickering 2012: 3). What they term 'the mnemonic imagination' is, in their view, crucial to understanding how 'the past attains or regains significance for the past and for the future, and makes remembering a creative process.' (2012: 13). The idea of the mnemonic imagination provides an important conceptual pathway to recognising within culture the ways in which remembering may be fixed, as well as influx between experience of something and the expectations of it within everyday life (2012).

Keightley and Pickering suggest that there is a gendered dimension to the historical division between the imagination and memory which has had an impact on women's memories in particular. They give the example of the experience of childhood sexual abuse and the dominant historical practice of dismissing women's memories of sexual abuse as a result of imagination or fantasy (2012: 195). They suggest:

The use of imagination in reconstructing gendered trauma is not considered a legitimate mode of exploration, and stories not conforming to the template of strict recall are discounted as meaningless. Stringent parameters of the

debate and neglect of the imagination as necessary to remembering have limited the potential to rethink women's relationships to their pasts and to familial structures, so denying the possibility of change and transformation in the everyday contexts of their experience. (Keightley and Pickering 2012: 195)

Building on these earlier genealogies of thought on the significance of the imagination in sociology, gender studies and memory studies, this chapter is analytically situated within the idea of what might be thought of as 'the feminist mnemonic imagination'. Its aim is to reveal inherited literary ideas of the implications of new technologies to the gendering of memory in particular.

By first studying memory, technologies and gender within imaginaries offered by utopian fiction from different mnemonic epochs you and I are reflexively able to dis-embed and momentarily rethink away from the familiar sociotechno knowledge routines that I seek to investigate in the Global Age case studies that follow in Chaps. 5, 6 and 7. By examining these earlier creative imaginaries you and I may be momentarily separated from the established values and knowledge practices of the Global Age in which, as reader and writer, we are differently embedded. Utopian fiction is inherently transvectoral, it has the ability to at once 'project itself forward and from this imaginary place in time look back at its own origins' (Bammer 1992: 80 cited in Levitas 2013: 130). Science fiction and speculative fiction, of which utopian writing is arguably a subgenre, enable a displacement in both time and space, giving rise to a disorientation that is critically productive (Suvin 1973/1979). The global memory field penetrates the human body and reaches, by way of robots and powerful telescopes, to the far reaches of the universe, providing records of light and gravitational waves marking when planets, stars, and galaxies were born. Thus, an examination of imaginaries enables one to be momentarily discursively dis-embedded from the global memory field in which the 21st-century human being is uncritically immersed.

However, as noted with the sociological imagination, much established utopian analysis has been predominantly androcentric. Studies tend to ignore questions of the endurance of gender inequality within the fictional texts themselves and include for close analysis and further canonisation texts by men. Thus, an early 20th-century study of the utopian method, Lewis Mumford's [1923] (2000) *The Story of Utopias*, ignores a long history of fictional and literary utopias by women as well as those by his contemporaries, including work by Charlotte Perkin's

Gilman (Levitas 2013: 89). As Wolf in *Building Imaginary Worlds* (2012) acknowledges, ‘most utopias were dreamt up by men, and tended towards male chauvinism’ (Wolf 2012: xx). The Renaissance saw the development of imaginary worlds by women which sought to counter the ‘misogynistic attitudes of the time’ (2012: 88). Wolf, though, misses in his analysis a number of key utopias by women, most notably work by Katherine Burdekin, which is discussed here, as well as other work by women in the 1930s and new feminist utopias from the 1970s and 1980s, including Marge Piercy’s *Woman on the Edge of Time* (1979). The writing of utopian fiction by women, and the study of feminist utopias within women’s studies and gender studies, are important alternative elements in what Adrienne Rich once coined as ‘re-visioning’ texts and situations afresh: ‘the act of looking back... [the] act of survival’ (Rich cited in Bammer 1992: 80).

This is not to say that genres, including the genre of science fiction, and the sub-genre of utopias should not be analysed purely as fragments of collective memory in and of themselves (Todorov 1976). Indeed, Simon Gaunt extends this view in his study of *Gender and Genre in the Medieval Period* to suggest that through genre a text is connected via a web of relations to other texts in that genre. Furthermore, the ‘principal interest in literary texts from the historical viewpoint ... is their status as fragments of collective memory’ (Gaunt 1995: 7). They may also, of course, be analysed as fragments of fantasy.

However, my own focus on these visions of the future is primarily as a dialogical (or polylogical) method akin to that of Bakhtin, who argues for a dialogical analysis between the writer/reader and the novel through the device of the chronotope, which he defines as the intrinsic connectedness of temporal–spatial relationships.² (Bakhtin 1981: 84) As seen in the previous chapter, the globalital memory field may be changing human temporal–spatial relationships and requires an approach to its analysis that understands and utilises movement as much as stasis: in order then to be able to gain a critical vantage point, the 21st-century mnemologist is required to dis-embed her- or himself momentarily from the field by looking back in time at imagined versions of the future in which there may be modelled different temporal–spatial relationships or chronotopic connections. In thinking about memory technologies in Utopias it is possible to see something of the collective memory and fantasy of memory technologies diachronically and subchronically in relation to gender.

GENDER, MEMORY AND THE PRESS

More than one hundred years before Thomas More's highly canonised *Utopia*, and before the invention and spread of the printing press, Christine de Pisan wrote and published *The Book of the City of Ladies* (1405). This is an allegorical utopian vision of an imaginary city built by famous women from history, politics, religion and the arts.

The prime mnemonic technology in de Pisan's work is the fabric, foundation, building and descriptions of the architecture of the city that houses and preserves the women. This is contained within the manuscript 'book' itself. *The Book of the City of Ladies* is a riposte to what the author felt to be the continual attack on women and the memory of their achievements through negative portrayals in other manuscripts, which arose from their lack of historical knowledge of phenomenal women and which led women to be ashamed at their secondary place in the medieval European world. The book is narrated by a female author who is assisted by the visits of three powerful 'Ladies'—defined not as ladies of noble birth but rather as a women of noble spirit—Reason, Rectitude and Justice. These figures of noble spirit structure the book and help the author to build the city, and to populate its houses with women from history who may live and be protected there to provide positive examples for all present and future women.

The structure of architecture of the city is described in vivid detail, with the women who inhabit it colourfully and powerfully animated: in many ways this medieval manuscript is closer to a virtual 3-D video game of the 21st century than to the conventional books that followed with the invention of the printing press. De Pisan adapts and rewrites the handed-down stories of particular figures, such as Medea, to support her thesis of historical women as worthy role models, and by doing so 'reasserts her own authority as designer of stories and traditions' (Davis 1998, Foreword, Kindle edition).

Within medieval culture, as Carruthers has shown, human memory was developed as an artistic medium and mnemotechnic in itself: students trained their brains—their organic memories—through a formal education which taught the importance of the art of image-making in the mind, a technique that included the construction and furnishing of imaginary rooms and wheels as well as processes and procedures of rhetoric (Carruthers 1990). These practices were advised by scholars of the arts of memory to be restricted in scale so as to prevent the mind roaming around and becoming lost. Carruthers refers, for example, to the rules of memory laid down by the medieval writer Tullius, requiring scholars to imagine a curtailed or 'small scale' space (Carruthers 2008: Appendix B, 357).

In this way, the *Book of the City of Ladies*, with its building of an entire city to house and defend women, is a radical feminist imaginary challenging male memory technology practices in the scale of its ambitions. The technology that Christine de Pisan advocates is not the trained mind art of memory, with its limited spatial ambitions, but rather the idea of an entire cityscape within the technology of the book, still at this stage involving the small-scale production of manuscripts. De Pisan's vision is like the Tardis in the TV series *Doctor Who*: the book appears small on the outside but on the inside it includes an imaginary memoryscape of magnificent scale. In this sense, *The Book of the City of Ladies* prefigures later technology: not just the technology of the book, but the 3-D worlds of video games and connected worlds of our Global Age. Her utopia asks that we imagine a technology of memory that can store and animate the entirety of the history of women.

In contrast, Thomas More's *Utopia* (1516) was written in Latin soon after the invention of the printing press, that is at a time when the printed book was a new media technology transforming mediated memory. It is thus difficult to tell whether More's book became well known because of its wider availability as a consequence of the printing press, or whether de Pisan's work was marginalised because of its feminist ideas. Harold Weber *Memory, Print and Gender in England* (2008) argues, as we saw in Chap. 2, that the advent of the printed book reconfigured the gendered articulations of media and cultural memory (Weber 2008: 176). With the mass-printed book, the writer and the technosocial memory practices involved in the writing of a book became part of a commercial network of production and consumption patterns which was not the case for the mnemotechnic of sculptors, dramatists and architects: 'Gender becomes increasingly central to processes of memorialisation, and the professional author central to the struggle for the mastery of cultural memory.' (Weber 2008: 3) As a consequence, the press, according to Weber, made men's manuscripts dominant within the public sphere, rendering many manuscripts by women subject to erasure and obscurity.

The printing press was certainly a major agent of change revolutionising culture and cultural practices in early modern Europe (Eisenstein 2005) in a way that changed the world forever (Man 2002). The written word went from being hand-crafted and produced in manuscripts in small numbers for a tiny elite, to being mass produced through the equivalent of assembly-line production: book production in Europe over just a few decades rose rapidly from 20 million to 150–200 million copies in circulation by the 16th century (Febvre and Martin 1997). Both *The Book of the City of Ladies* and *Utopia* are thus situated at the interstices of manuscript

and print culture: they link the importance of the art of memory with a revolutionary shift towards the mass production of books that enabled human endeavours to be more widely recorded and shared.

The title *Utopia* translates as no-place-land. It is a description of the politics, culture and social structure of an ideal island republic. Unlike *The Book of a City of Ladies*, More's *Utopia* embodies but does not expand upon the new media memory technology of the day in its vision of the future. Throughout *Utopia* there are many references to reading and study which More suggests enhances the human mind trained in the art of memory (More 1516: 18):

He spoke both gracefully and weightily; he was eminently skilled in the law, had a vast understanding, and a prodigious memory; and those excellent talents with which nature had furnished him were improved by study and experience. (More 1516: 19)

Utopia emphasises the importance of oral memory and the art of stages of recall through rhetorical performance:

While I was talking thus, the Counsellor, who was present, had prepared an answer, and had resolved to resume all I had said, according to the formality of a debate, in which things are generally repeated more faithfully than they are answered, as if the chief trial to be made were of men's memories. 'You have talked prettily, for a stranger,' said he, 'having heard of many things among us which you have not been able to consider well; but I will make the whole matter plain to you, and will first repeat in order all that you have said; then I will show how much your ignorance of our affairs has misled you; and will, in the last place, answer all your arguments'. (More 1516: 28–29)

It is the new Renaissance technology of mass-produced books, however, that More describes as mobilising new ideas into Utopia. The inhabitants of Utopia are said to have picked up hints from earlier visitors to the island on how to make paper and how to create a printing press. Significantly, the visitor to Utopia takes with him not merchandise but books, mostly books by the ancient Greeks:

Before this they only wrote on parchment, on reeds, or on the barks of trees; but now they have established the manufactures of paper and set up printing presses, so that, if they had but a good number of Greek authors, they would be quickly supplied with many copies of them (More 1516: 123)

Most learning is through doing rather than through formal schooling, although happiness derives from the improvement of one's mind through study, through public lectures and lots of reading (More 1516: 81).

At the same time, however, the new technology of the book is also envisaged within a world of policed and secured borders that control the movement of populations: notably, in order to travel everyone must have a passport showing who they are, on pain of punishment as a fugitive (93). In no-place-land the ideal is also imagined as the capacity to maintain security through ensuring that the population is always under continual surveillance:

There are no taverns, no alehouses, nor stews among them, nor any other occasions of corrupting each other, of getting into corners, or forming themselves into parties; all men live in full view. (More 1516: 93)

As well as books that enable the dissemination of good ideas, Utopia also makes use of monuments to encourage models of good citizenship and good behaviour:

As they fright men from committing crimes by punishments, so they invite them to the love of virtue by public honours; therefore they erect statues to the memories of such worthy men as have deserved well of their country, and set these in their market-places, both to perpetuate the remembrance of their actions and to be an incitement to their posterity to follow their example. (More 1516: 133)

In addition to the formal memorialisation of the past in this way, there is also a form of ancestor worship configured around the memory of good men. This sense of the presence of ancestors in Utopia also acts as 'a restraint that prevents their engaging in ill designs' (More 1516: 163)

The Utopian society is supposedly anti-materialistic, sharing property through common ownership and circulating goods and services without monetary transactions, yet it is deeply divided in terms of gender, with women playing traditional roles and serving men. Further, this gender hierarchy is based on a further subclass of slaves who perform tasks such as animal slaughter that are deemed unclean by the main population (More 1516: 85).

All the uneasy and sordid services about these halls are performed by their slaves; but the dressing and cooking their meat, and the ordering their tables, belong only to the women, all those of every family taking it by turns. (More 1516: 87)

Colonialism, or rather the violent occupation and plunder of lands that are not made use of by their inhabitants for cultivation is also acceptable (More 1516: 83):

if the natives refuse to conform themselves to their laws they drive them out of those bounds which they mark out for themselves, and use force if they resist, for they account it a very just cause of war for a nation to hinder others from possessing a part of that soil of which they make no use, but which is suffered to lie idle and uncultivated, since every man has, by the law of nature, a right to such a waste portion of the earth as is necessary for his subsistence.(More 1516: 83)

Thus, in the epoch just prior to print culture, de Pisan offers an imaginary in which women are remembered within the new technology of the day, that of the virtual city, expanding the confines of the art of memory to its fullest. But More, already embedded in the new technology of print culture, imagines an ‘alternative’ world in which women are oppressed, along with a subclass of slaves. Books mass-produced in that later society provide an endorsement for the continuation of that gender and class stratification through bringing into the culture memories of an earlier Greek culture, equally sexist and based on a class of slaves and their exploitation. In this way in More’s *Utopia* new technologies of memory are not necessarily going to provide for a new gendering of memory, or memories of gender. In this imaginary, the new mnemonic technology of the book simply reproduces and reinforces old sexist ideas; and the older memory techniques of rhetoric and their performance of delivery—*actio*, *pronuntiatio* and *hypokrisis*—act to reinforce established memories of gender.

The different imaginary such as that suggested by the virtual city of de Pisan suggests to the feminist mnemologist the need for new methods and creative practices. Thus, Jody Enders (1994), in an insightful essay into de Pisan’s work, argues that de Pisan manages to provide what most authors cannot, since writers are embedded in discourses that depict women as secondary and second-rate: de Pisan manages to provide a positive voice for women. She does this, Enders contends, through engaging rhetorically in the debate with men about rhetoric, law, literature, and theology and by attacking ‘the very locus for the storage and transmission of their disciplinary ideologies: the art of memory’ (1994: 232). It is through

the construction of a fortified locality built by women to house images of women that engender authoritative female discourse, she reinvents a memory for women. Her city constitutes a strategy by which to exhibit visually, orally, and performatively the female voice. (Enders 1994: 233–4)

While Enders concedes that de Pisan's gendered memory is not without contradictions, and should be understood within the ambiguous context of invoking feminism in the middle ages, de Pisan invents a 'feminist mnemonics' (1994: 246). Enders contends that *The Book of the City of Ladies* is ground-breaking because it rewrites the gendered script 'by revising its place of generation: the memory' (1994: 246).

However, Enders is pessimistic about the capacity of *The Book of the City of Ladies* in the end to offer women a sense of social praxis or action.

Christine's gendered memory vision of a city for women is never translated—at least, not within this text—into woman's social praxis. Instead, it seems destined to rehearse its own virtuality inexorably, to stage women translating memoria into the strangely oxymoronic vision of an authentic *hypokrisis*—a delivery that is, in essence, hypocritical 'acting.' The female memory may liberate but the performance into which it is translated is constraint, suffering, or flight. (Enders 1994: 245)

Yet what is also critical here is Enders' contention that ultimately de Pisan's female rhetorical performance takes place within a bounded mnemonic system: Enders argues that this suggests that female social praxis can only take place in 'virtuality'.

What Enders misses, in my view, is that de Pisan makes use not just of the mnemonic device of rhetoric but that she expands it through the vision of the city as mnemosocio practice. While More's *Utopia* imagines a rural society, as do later socialist visions such as *News from Nowhere* in the late 19th century, *The Book of the City of Ladies* places the city at its heart. According to the historian and French philosopher, Jacques Le Goff in *Time, Work and Culture in the Middle Ages* (1980: x) the era in which de Pisan wrote was one in which the modern era was largely invented.

Its inventions include the city, the nation, the state, the university, the mill and the machine, the hour and the watch, the book, the fork, underclothing, the individual, conscience and finally, revolution. (1980:p. x)

Le Goff is not suggesting that cities did not exist before the middle ages. Rather, he puts forward the view that the city was developing in new ways with the Renaissance, moving beyond what had been the city-state (le Goff 1980).

Thus what I am suggesting is that the city in late fourteenth culture was arguably a new technology in its own right. *The Book of the City of Ladies*, as the title suggests, is not just a reworked imaginary memory device, but rather a feminist mnemonic imaginary of a technology of culture and design that, by the later medieval period, was changing the traditional boundaries of the city from economic and military defences to frontiers that were more cultural and porous (see Nicolas 1997). In his work on the imaginary and image of the city in cultures, Kevin Lynch (1959) argues that what is important to recognise in the cityscape imaginary are the ‘moving elements in a city, and in particular the people and their activities’ (1959: 2). These he argues ‘are as important as the stationary physical parts’ (1959:2). Furthermore, in the image of the city ‘We are not simply observers of this spectacle, but are ourselves a part of it, on the stage with the other participants (1959: 2).

It is not only de Pisan’s reworking of the use of art of memory but also her use of the city imagined as a radical new mnemonic technology that will enable more equal-gendered memories that include women in new ways; ways in which the reader is imagined as taking an active part, in having agency for their future preservation and generation. Thus, in the final part of *The Book of the City of Ladies* de Pisan entreats the reader to rejoice in the completion of a city which not only houses women from the past, but which will thus shelter and defend future women against a misogynistic version of the past which has made women ashamed and powerless. Hence the feminist city as mnemotechnic will shelter the reader ‘from the past’ for as long as the reader looks after this memory device. The technology and design of the city, though imaginary, is made of material that reflects us:

For you can see it is made of *virtuous* material that shines so brightly you can see your reflections in it, especially the turrets that were built in the final part of this book, as well as the passages which are relevant to you in the other two parts’ (de Pisan: 237).

‘Virtuous’ and ‘virtual’, both in English and in the text’s original French, are etymologically linked. ‘Virtuous’ comes from the Old French *vertuous* ‘righteous; potent; of good quality; mighty, valiant, brave’ derived from the

earlier late Latin *virtuosus* ‘good, virtuous’ from the Latin *virtus*. The word ‘virtual’ comes from the medieval Latin *virtualis*, and hence again from the Latin *virtus*, with its additional meaning of excellence and potency.

Thus, what de Pisan points to is not that the technology of the book or indeed the technology of the city as memory devices will liberate women, but rather that the most potent praxis lies within the reader herself rather than the figures in the text. Hence, de Pisan’s high turrets are covered not in copper, which can become dull as it tarnishes, but in *gold* (p. 15) which reflects our own images. It is perhaps then not without significance that gold is a key element for memory in the Global Age: gold is in mobile devices, in computers, in laptops and in tablets. And because gold does not tarnish it is gold that is used to provide the fastest connections to wire us within the global memory field (Reading 2014).

GENDER, MEMORY AND THE SCREEN

In this next section on imaginaries in the mid 20th century I compare utopian visions of the 1930s and 1940s in order to explore the relationships between gender, memory and human imaginaries around the ‘new mnemonic technology’ of reproducible visual memory. I examine two novels by the author Katherine Burdekin, *Swastika Night* (1937/1985) and *The End of This Day’s Business* (1989) and one novel by George Orwell, *Nineteen Eighty-Four* (1949/2003). The novels are milestones within a literary period that saw a huge rise in the 1930s and 1940s of imaginative futuristic literature (Croft 1984). However, while *Nineteen Eighty-Four* became part of the literary canon, Burdekin’s work was largely forgotten, a fact that Daphne Patai puts down to her being ahead of her time, and, out of place—she was not part of elite literary circles of the time and lacked social capital (Patai 1989: 34).

The period saw new forms of reproducible visual memory building on established technologies from the middle of the 19th century with the invention of chemical photography and the invention of motion capture that then led to film-making and public cinemas providing for the first time a mediated memory of motion. The antecedents of the digital connectivities of the 21st century were already laid down by the 1930s through the earlier invention of and establishment of the railways, and the laying of global telegraph wires further connected through the subsequent invention of the telephone (Maxwell and Miller 2012). The invention of the Nipkow Disc, the first method for mechanically and geometrically scanning images,

which enabled early mechanical television, had by the time of publication of George Orwell's *Nineteen Eighty-Four* (2003)³ led to early broadcast television.⁴ The period also saw the advent of mnemonic technologies to record sound including music and voice through the phonograph, as well as the capacity to distribute sound across space through the telephone and then the broadcast radio.

Katherine Burdekin's *Swastika Night* first published in 1937 appeared some 12 years before the dystopic vision of George Orwell's *Nineteen Eighty-Four*. Both books provide a highly pessimistic vision of the future, but with very different uses of technology in relation to the human mind and human memory. In Orwell's imaginary, technology and highly controlled human practice are used to continually erase the past and reconstruct the present for the uses of a powerful elite. In Burdekin's vision all historical documents except for one book and one photograph have already been destroyed, effectively erasing all knowledge of a time before. *Nineteen Eighty-Four* reproduces uncritically a patriarchal gender hierarchy while critiquing the power of the class elite. But in *Swastika Night*, the totalitarian regime lays bare gender and power relations through its imaginary of a cult of extreme masculinity drawing on the imagery and history of 1930s fascism in Germany.

In *Nineteen Eighty-Four* the Party is the embodiment of Ingsoc or English Socialism which rests on core principles that assign the past to oblivion and make the future impossible to imagine: 'Newspeak, doublethink, the mutability of the past... The past was dead, the future was unimaginable' (2003: 31). Through Orwell's patriarchal figure of control, 'Big Brother', all thought of the past, present and future by Party members is effectively controlled through a number of 'new technologies'. The primary new technology is the Telescreen, a two-way television that both transmits and receives data and which, for Party members, is required to be on in the individual's home at all times, so that there is no longer a notion of privacy. Workplaces and public areas are also under surveillance, and the transmission of propaganda through large public telescreens keeps the thoughts of the population under surveillance and within Ingsoc's control. Individuals' movements, speech and even facial expressions are carefully monitored to ensure that they are following the Party line. Older forms of legacy print media, along with oral culture, articulated through books, magazines and song-sheets are continually rewritten and updated through the Party workers at the Ministry of Truth. An army of Party workers continually rewrite news from the past, school textbooks,

and any other documentary proof of a different historical reality, so that documentary memory supports Ingsoc's present expedencies. Individual and collective memory is also controlled by the mnemonic technology of human language which is being linguistically redeveloped by Ingsoc into a new version of English called Newspeak. Newspeak has as its objective the elimination of the capacity to express thoughts contrary to that of the Party line. The novel itself includes a long treatise on Newspeak which Orwell clearly meant the reader to assimilate early on, even though it is published as an Appendix.

In *Swastika Night* patriarchal power and control is even more extreme, with any memory of a time when girls and women were treated anywhere near equally with boys and men completely erased along with the technologies of memory and social practices associated with them. Only one book and one photograph remain as mediated evidence of a world in which girls and women were once valued. The book itself, however, is not a mass printed book but, rather, one that is suggestive of an historic culture prior to mass print: the book is a one-off, handwritten on parchment and has survived the destruction of printed books. In addition, the mnemonic technosocial practices of reading and writing have become the purview of an elite of male Knights and Priests who, in the absence of any other books, are reduced to reading only technical manuals and the Hitler Bible. Whereas in *Nineteen Eighty-Four* some women are members of the elite Party and work in public offices, and 'prole' or working-class, women look after children and do domestic chores, in *Swastika Night* all women are classified as subhuman: all women have been reduced to the level of animals kept for the sole purpose of reproducing the human race. Christian women live slightly better but still highly proscribed lives, while other women are kept imprisoned in animal pens solely for breeding. In *Swastika Night* there is no longer a concept of rape, since women classified as animals no longer have to consent.

In contrast, in *The End of This Day's Business* (1989) Burdekin explores a future matriarchy: this is a world in which women have overthrown an epoch of extreme patriarchy and human self-destruction, managing through revolution to establish rule by girls and women that keeps boys and men separate and unequal.

This imaginary matriarchy, set 4,000 years in the future, was authored by Burdekin in the 1930s as patriarchal fascism in Europe was on the rise. In the novel, women are described as saving humanity and the planet: historically, 4,000 years earlier they had overthrown a male-dominated

and male-controlled world which had threatened to descend into total war and planetary destruction. In the matriarchy, while there are national and cultural differences which are respected, there is no national chauvinism; and while male-to-male hand-to-hand combat is permitted as sport, there are no weapons, no war and no militarism. Women are depicted as the reasonable sex: they are the ones who are all-powerful because they understand the need to care for the earth and all its living creatures. To ensure that life is preserved and harmony kept, they subject all men to the power of women, and devalue them so that men see this as the natural order of things. Boys and girls are raised separately, with the patrilineal knowledge of their biological fathers always unknown to them. Women have also eliminated male participation in the production of collective memory. Thus, they educate boys not to want or feel able to work in the print trades; women are then able to 'print what they liked, and refuse to print what they did not like.' (Burdekin 1989: 93) Furthermore, 'They [women] gradually did the same thing in all the semiskilled work. The boys thought it quite natural that they should be put to heavy dull laborious work which exercised their fine muscles and put no strain on their dulled minds' (Burdekin 1989: 93). Such matriarchal control is justified in this future world because women, after a brief communist revolution that resulted in equality of the sexes and that overthrew male-dominated fascism, were threatened by men with another fascist patriarchal takeover that promised total world destruction. Consequently, women decided that they could never really be safe until all knowledge by men of the male-dominated civilisation of the past was forgotten:

they changed the old education laws, and taught the boys and girls differently. There were certain things boys were not allowed to learn. Latin was forbidden to them. The women wanted a secret language (Burdekin 1989: 94)

In this way women reduced men to 'a state of extreme psychic and enfeeblement' and women then ensured the 'destruction of all memory of male civilization in the minds of men' (Burdekin 1989: 94). The women destroy all books, except those that they translate themselves into their secret women's language of Latin. They leave in place the statues, monuments, pictures and music of the patriarchal epoch but this was because 'no boy could know, unless he was told, whether a woman or a man had painted a certain picture or designed a certain monument or composed a certain piece of music.' (Burdekin 1989: 94). At the same time, as documentary reminders

of the long ago wars, destructiveness and ‘death drive’ of the male sex that nearly destroyed the planet, ‘the women kept also, in the headquarters of their secret society all over the world, the collections of war pictures which had been made by the very early communists.’ (Burdekin 1989: 95)

The End of This Day's Business presents the moral dilemma of a society in gender reverse: hence the main character, Grania, is an artist who seeks to betray the sisterly oath to keep this past secret. She tries to reveal the past and its mechanisms to her oppressed son and a small group of other oppressed young men. Grania, however, is caught and put on trial and finally executed.

What is significant in both *Swastika Night* and *The End of This Day's Business* in terms of gender and the imaginary of memory technologies is that both books are set near Salisbury in the UK, near to the Neolithic circle of megaliths known as Stonehenge. In the imaginary of the novel the stones and landscape around the henge provide for the 20th- or 21st-century reader, I would suggest, a mnemotechnic for an enduring chronotope of a much earlier civilisation: carbon dating of the stones and the surrounding area suggest that some of the megaliths date from 3000 BCE meaning that Stonehenge was built by Neolithic and Bronze Age humans. Scholars have suggested that the henge, in being aligned with sun and moon, acts as a giant astronomical computer (Sykes 1993) as well as a memory-storage facility (Boltz 1975). According to the historian Raphael Samuel, the genealogies offered by literary allusions to Stonehenge take us into the ‘intellectual underworld’ of our own time: the henge brings together science, magic and religion by connecting present-day heritage with that which is deemed to be ‘prehistory’, before the formal documentation of his stories (Samuel 2012: 229).

Stonehenge and, indeed, other Neolithic stone monuments act as a chronotope within Burdekin's imaginary for the ways in which the past can be erased and written to suit 20th- and 21st-century's patriarchal culture: for example, although there are many cultural stories about Stonehenge and scientific works in terms of its origins, meaning and various uses, because it is effectively from a time of ‘prehistory’ prior to written records, the site and reference to it may actually be read in multiply layered ways. Thus although Stonehenge is predominantly referenced to a time of sun worship, some scholars have argued that it has in fact been solarised in mythological memory to meet the purposes of present-day patriarchy: the ditches, hills, burial sites and mounds that pre-date Stonehenge and its surroundings are, arguably, from an earlier epoch used for measuring the

cycles of the moon and for moon worship, and thus bespeak a time of much earlier Mesolithic matriarchal power⁵ (Sims 2006). In her reading of Stonehenge and the surrounding area of Salisbury and Avebury, Barbara Bender, drawing on the cultural theories of Raymond Williams and Pierre Bourdieu, makes the argument that cultural scholars need to understand the henge itself not in terms of the fixity of its structures but in terms of the movements of the people between them. She contends that from this analytical perspective of movement—a transvectional approach—it is possible to see in the early earthen barrow and hill that preceded the stone henge, ‘things we hold apart, they combined’ (Bender 1992: 747). Only towards the end of the fourth millennium BCE were certain categories of people, including women, beginning to be excluded and separated off from public cultures. Importantly for our work in the Global Age on gender and technologies of memory, Bender argues:

The material record for a preliterate period is inevitably coarse-grained and incomplete. Nonetheless it is—sometimes—a more democratic record than one based purely upon written sources. It is the material imprint of what Bourdieu calls *habitus*, the normal, banal, habitual but, nonetheless, socially and culturally specific environment in which, and through which, people negotiate their lives. It is also the imprint of more consciously created realms of social knowledge and control. (Bender 1992: 752)

This is important to any reading of the meaning of Burdekin’s central inclusion of Stonehenge to her imaginary: in her work, her characters walk and dance and move between and across these ancient landscapes. She is, in my view, offering another feminist or matriarchal imaginary of these stone and landscaped memory technologies: she is invoking the reader to reimagine the past, and to reimagine memory technologies as more democratic domains that combined elements in ways that perhaps digital technologies in connecting memories may also do too.⁶

MOBILISING FEMINIST MEMORIES

In the final part of this chapter exploring different imaginaries of memory technologies and gender on the cusp of the Global Age, I turn to Marge Piercy’s feminist classic *Woman on the Edge of Time* (1979). The book was first published in 1979: I first read it in 1984 just after four months working as a computer technician repairing and testing Spectrum ZX computers

at a factory in what was dubbed the UKs 'silicon valley' at Sinclair Research Ltd in Camberley, Surrey.⁷ At the time of Piercy's book, home computing was just emerging: the majority of computers were enormous devices set apart for a specialist elite; they did not penetrate everyday family, work and educational life in the way that they do in the Global Age. And while early mobile phone devices had been developed in the 1970s they were large, cumbersome and extremely heavy. The mobile phone, as a light portable almost wearable ubiquitous multifunctional computer and communication device had still to be invented. The internet, although beginning with electronic computers in the 1950s, did not develop until the work of Tim Berners-Lee in the 1980s. Hence all of what is examined in the subsequent domains of the 'the global memory field' came immediately after Piercy's utopian feminist imaginary.

A Woman on the Edge of Time is set on the east coast of the United States of America in a 1970s mental institution to which the main character Connie has been committed against her will. The book narrates her life story through flashbacks to her earlier life in which she grew up impoverished and abused by her father, then violently abused by various partners, and her brother-in-law. The flashbacks and her imprisonment in the mental institution are shown in contradistinction to her encounters with a future utopia. Connie accesses utopia with the help of the character of Luciente who has been trained to send messages from the future to receptive individuals from the 20th century in order to help them understand the catastrophic end that the world is heading towards unless people fight against it.

Memory, gender and technology in the novel are critical to both the vision of the future and memories of the past. In the institution Connie is denied even a notebook or pencil stub to record her thoughts; she has limited access to newspapers and the television is fixed to a particular channel chosen by the orderly of the day. She has no personal space and no personal clothes. What she does have, however, is the resource of her personal memories of being committed to the same institution previously and hence a repertoire of responses and behaviours that she knows will help her survive.

There are various technologies within the mental institution itself that are designed to wipe out and lobotomise patients' memories. One of these is the use of electroshock treatment, the impact of which Connie witnesses in relation to other patients. She is subjected to psychoactive drugs which fog her mind. Her own memories of her life story, the people within it and

the events that have taken place are totally rewritten and renarrativised by the medical establishment and social workers to suit their understanding of why Connie is in the institution: the novel ends with a copy of her official files which totally contradict Connie's memories of events and the journey the reader has been taken on with her. Doctors and social workers deny Connie's own version of events, even down to denying her story that she has been beaten up by her niece's pimp. Her niece Dolly denies reality to ensure that Connie is committed to the institution, saying that her pimp is her fiancée and that Connie had gone mad and attacked them: Connie's version of events is that she had tried to defend her niece against her pimp forcing her to have an illegal abortion.

In this imaginary present, the majority of past memories are traumatic and agonisingly painful. Connie is taken back to past moments with her daughter who was taken away from her by the authorities and adopted: Connie, in dire poverty and grief, had neglected her daughter, and one day had broken her arm. These memories are counterpointed with visions of the future that offer a different kind of acceptance in the world, a different power structure in which racism has been replaced with multiracialism and multiculturalism. Inequality between the sexes has been overcome, and children are created through the artificial means of a 'brooder': after each birth from the brooder each new baby is given three parents of either sex. In Percy's imaginary world every individual has a 'Kenner', an individual and collective memory of knowledge, as well as a communicator and GPS device. The Kenner is a clear imaginary of the Global Age: it anticipates the mobile and social memory technologies that are the subject of the analyses in later chapters of this book, written in the first quarter of the 21st century.

In the mental institution Connie is subject to a medical experiment to insert electrotransmitters into her brain, ostensibly to control her violent outbursts and to enable her to function back in 'normal' society. The process involves shaving her head, until she is 'bald as an onion', recalling the memory of the shaving of women's heads at concentration and death camps during the Nazi Holocaust. The process impacts on the cognitive capacities and memories of the inmates who are experimented on, just as electroshock therapy is described as taking away people's memories. At the same time, drugs, both medically prescribed and illicit, are represented as taking away the memories of those who are poor and forced to work the streets: when Connie's niece Dolly finally visits, she is with a new pimp who is pumping her full of 'speed', which has made her lose her memory. Hence, within the patriarchy of the novel, medical technologies and

psychoactive technologies are depicted as erasing organic human memory particularly the memories of the ‘mad’, the non-white and the poor, who are predominantly women. Pointedly, the future Luciente describes the medical experiment that Connie is being subjected to as equivalent to: ‘sticking a log into somebody’s eye to dig out an eyelash! They had not even a theory of memory! Their arrogance... Amazes me.’ (1979: 223).

In the future world imaginary, however, memory and history of the past are treated as a resource to fuel a concern for the ongoing struggle to ensure the safe-keeping of the planet and its resources. The future world remembers through various memo-technologies, including the technology of the ‘Holi’; these Holis are 3-D holograms watched together in the village hall. Holis show ‘The Age of Greed and Waste’ (the 20th century) with its wastefulness, its inequalities, its crude use of technologies and pollution. They remind the utopian community of their connectedness with all things. Thus, at the end of one Holi there is a song played over the image of water flowing and a crane flying:

Only in us do the dead live,
 water flows downhill through us.
 The Sun calls in our bones.
 We are joined with all living
 in one singing web of energy.
 In us live the dead who made us.
 In us live the children unborn.
 Breathing each other’s air
 drinking each other’s water
 eating each other’s flesh we grow
 like a tree from the earth (Piercy 1979: 182)

The future world imaginary anticipates holograms, Skype and virtual conferencing: at one point Luciente calls up a group of people to discuss how they can help Connie escape from the mental institution. Technologies, including computers, are imagined as a helpful way to connect people and to provide additional data for people to collectively and equally make knowledge-based decisions. But in the future world, this digitally connective human knowledge is also articulated by ensuring the sustainability of the environment and all living things through listening to the views and needs of non-human persons translated through Earth Advocates and Animal Advocates, who have a stronger connection to the planet and animals.

Like George Orwell's Newspeak in *Nineteen Eighty-Four*, Piercy also invents a new language for her future imaginary with its own vocabulary and grammatical structure. But, unlike *Nineteen Eighty-Four*, this is not a language designed to prevent thought or block out a multiplicity of viewpoints. Rather, it seems to provide a wider variety of means to express a more complicated relationship between humans and the environment, between mind and body, between different states of imaginary and memory and between people and technology. 'He' and 'she' for example have been replaced with the gender-neutral 'per'.

After Connie is operated on as part of a medical experiment she is unable to access the utopian future world. Instead, she finds herself in a dystopian future that is extremely patriarchal, highly capitalist and militarist, and which has its own dystopian language that restricts the imaginary and memory: human beings are ranked strictly according to wealth with the world totally controlled by multinational corporations or 'multis' and their proprietor families who inherit all property and wealth. Connie finds herself in the tiny apartment of Gildina, a 'contracty'—the name for a woman who lives in one room in a 'middle-flack'—and is contracted for sex. Gildina is contracted to Cash I who is 'like a cybo', as he has had training and electrodes inserted into him make him into a fighting machine (Piercy 1979: 299). There are no windows in the contracty's apartment, just a choice of five changing electronic pictures on the wall, one of which is broken. 'Food' is administered through an automatic chute and consists of plastic packets of warmed up, flavoured, artificial goo made out of coal, algae and wood by-products. Drugs are provided to contracties in multiple forms to enable the inhabitants to have some kind of private recreation, and a machine called a 'Sense All' provides, at a price, an occasional 'luxury' experience limited to a choice of pornographic and violent narratives. The advertising blurb for one Sense All experience includes a reference to the past historic defeat of feminism:

'When Fems Flung to Be Men' In an Age of Uprisings, two fem libbers meet in battle—Kung fu, tai chi, judo, wrestling. Stronger rapes weaker with dildo. SD man zaps in, fights both (close-ups, full gore), double rape, double murder, full Sense-all. (1979: 293)

The contracty, Gildina, like all others is continually under surveillance by the 'Securcenter' that scans 'versive acts and talks'. The contracties are not allowed to talk to 'duds'—people who live outside of the high-rise apartments. In fact Gildina never leaves her apartment, has no friends and

does not see why it would be pleasant to have friends. She is continually taking hormones and her body has gone through multiple operations in order to make her into a cartoon of femininity. After an hour talking to Connie, a two-metre-high robot ‘supercop’ barges in to the apartment and demands to know what they have been doing. He has been technologically designed purely for his function and is owned by Chase-World-IT with one of his robot hands ‘modded’ into a weapon. With pride he makes it clear that he has no genitalia ‘nothing inessential. Pure functional. We embody the ideal... None of us has ever been disloyal to the multi that owns us.’ (Piercy 1979: 299).

In this alternative imaginary world, men and women are stratified and modified by technology. The world consists of three main classes which are strictly segregated and guarded. The ‘woolies’ who are all those who ‘are still animal tissue’ no matter how much they have been adapted and modified by technology (Piercy 1979: 298) and the cybos who are robots. Above them all are the ‘richies’ who own the ‘multis’. The woolies are divided into ‘duds’—who ‘are not like they’re people. They are diseased, all of them, just walking organ banks... they live like animals out where it isn’t conditioned’ (Piercy 1979: 291). Women of middle rank are divided into those that provide sex and those who have been modified or ‘cored’ to make babies all the time. Men are adapted and technologically enhanced to be fighting machines, soldiers and security personnel, with the best termed ‘assassins’. While the richies might live for 200 years, the middle flacks live for only 40.

In Piercy’s dystopian world, as in Orwell’s *Nineteen Eighty-Four* (1949), human beings are highly controlled, economically segregated and continually under surveillance. The world is also highly gendered. Technology serves to control the present, and to obfuscate and erase the past as well as any imaginaries of a different future. Gildina is so modified by technology and security that she cannot remember a different past, a different way of doing things and has even ceased to remember even simple human functions. She is, for example, deeply offended when Connie asks why she does not go out for a ‘walk’ ‘I’m middle level, you know! I suppose on duds walking. I wouldn’t remember, myself’. She has no memory or knowledge of how things grow and again is grossly offended when Connie asks whether she eats any vegetables. She has no real knowledge of how food is produced, shrugging when Connie asks, explaining that it comes from ‘out in the rough lands, big corporate factory farms. They mine it, you subscribe, and it gets delivered every week.’ (Piercy 1979: 296).

In this dystopian imaginary, the woman's world is entirely cut off in terms of both time and space and segregated from the rest of the world. When Connie asks where the plastic plate and spoon go after she has eaten from them Gildina again looks shocked, unaware of the irony of her speech in the way in which a machine to extract dirty plates draws on the name of a Greek philosopher., 'how would I suppose on that? All middle flack perplexes have Platos. You take the clean stuff out and you put the dirty stuff in' (Piercy 1979: 297).

As Connie escapes from this other world she realises that this is the alternative dystopian vision where technology is used to discipline, punish and stratify a gendered world even further. As the narrative continues she makes the connection that the two worlds in the future coexist: that the war that her friend Luciente refers to is being fought against this dystopian other. After this, Connie has a vision of the front where they are fighting and she notices that Luciente no longer wears her mobile communication computer, her Kenner. Luciente explains that at the battle front, 'we take them off for fear will use them without thinking. They can home on the frequencies. We use these locator-talkers.' Hence, as with Orwell's *Nineteen Eighty-Four*, mnemonic technologies may also control human beings as surveillance technologies, as, indeed, we shall see in the subsequent chapters of this book. The novel also anticipates the extent to which computers and practices associated with them are internalised, changing not just human doing, but human being: 'I myself, I confess, I feel naked without my Kenner. It's part of my body I only take it off to couple or sleep.' Connie asks:

'suppose it got lost?'

'I'd lose two-thirds of my memory. Margold at Treefrong had an accident in which both left arm and Kenner were destroyed. Arm we could restore but not Kenner. Marigold killed herself... For some it's only a convenience. For others part of their psyche' (Piercy 1979: 327).

In *Woman on the Edge of Time* Piercy provides the reader with two future views of gender and mnemonic technology that anticipate the complexities of the Global Age: an imaginary in which there is gender equality, achieved through all being responsible for 'birth' of new life, which also engenders androgyny and transgender, in which gender ceases to be a key part of power structure and everyday performance. In this imaginary, memory technologies are largely positive and benign. The alternative view is the novel's present and by extension, if nothing is done to prevent it, an imaginary dystopian future in which there is extreme gender bifurcation

and inequality, with women's lives wholly circumscribed within advanced capitalist patriarchal segregation. In Piercy's future dystopia, mnemonic technologies are used to erase history, all sense of the past and to control the present through surveillance by those in power over the ignorant majority. Luciente in her analysis of the past sums up the interstices thus: 'it's that race between technology, in the service of those who control, and insurgency—those who want to change the society in our direction' (Piercy 1979: 223).

CONCLUSION

In an interview, Marge Piercy said, 'Imagination is involved in memory, of course, because you're using other people's memories, which you enter through imagination.' (Piercy, interviewed by Lyons 2007: 334). This chapter has studied imaginaries of memory, technologies and gender in literature to provide a critical springboard to the work of the following chapters on gender and memory in the Global Age. The analyses indicate the different ways in which memory and gender intersect and transform when the mnemonic technologies are new or on the cusp of change. Exploring the feminist imaginary, I suggest, offers a transvectoral route into contemporary mnemonic technologies and practices within the global memory field. The utopian method enables the sociologist, or in our case, the mnemologist⁸ to begin work by reflecting imaginatively, creatively and critically on the present through the double dis-embedding of imagining the future, whilst returning to the past and present. Recognising the imaginative element to remembering, as suggested by Keightley and Pickering (2012), enables the feminist mnemologist to critically desituate her understanding of the role of new technologies in constructing gendered memories and memories of gender.

The chapter's analysis suggests also a set of patterns in human imaginary worlds, which are then 'both a reflection of the world in which we live and those of which we dream. They are the *gesamtkunstwerk* that unite all arts, the culmination of human imagination, the first drafts of the future that humankind will inhabit, and the dreamworlds we already inhabit today.' (Wolf 2012: 152). There is a discernible pattern, for example, in feminist imaginaries when contrasted and compared with canonised hominist utopias. Technology is double-sided in relation to memory and gender: new technologies can be used to further oppress women and to erase the past. In patriarchal dystopias such as Thomas More's *Utopia* and George Orwell's *Nineteen Eighty-Four*, women remain as second-class citizens. Citizens are kept under surveillance to prevent the emergence of new ideas; legacy technologies, the manuscript, the photograph, the

book, provide a glimmer of a different reality and history. In feminist utopias, new technologies provide for a way of imaginatively re-memorizing women; or imaginatively reworking the gendering of memory and the memories of gender. Feminist imaginaries suggest that if women and men do not mobilise positive and inclusive memories of women, the future will be yet further gender division and oppression.

Yet, Piercy herself denied that *A Woman on the Edge of Time* was a utopia: in *Parti-Coloured Blocks for a Quilt* she says of the book ‘it is very intentionally not a utopia because it’s not strikingly new. The ideas are the ideas basically of the women’s movement’ (Piercy 1982: 100). As I shall show in Chap. 8, it is up to women and men on the edges of the time in which they live to engage in creative acts of remembering that remember equality in gender and engender memories of equality.

In the next chapter, from the more critical vantage point accorded through this analysis of the imagination, I explore the six trajectories of analysis suggested in Chap. 3; how the global memory field penetrates human memory narratives of the self from inside the mother’s body, from prior to birth in ways that offer new forms of potential, whilst also resulting in the literal erasure of girls and women from the planet.

NOTES

1. In his essay ‘Forms of Time and of the Chronotope in the Novel’ (84–258) in *The Dialogical Imagination* (1982), Bakhtin makes the point that the process of assimilating real historical time and space in literature has a complicated and erratic history, as does the articulation of actual historical persons in such time and space. Isolated aspects of time and space, however—those available in a given historical stage of human development—have been assimilated, and corresponding generic techniques have been devised for reflecting and artistically processing such appropriated aspects of reality. (84).

He gives the name chronotope, which literally means timespace, to a constituent category of literature that expresses the connectedness of space and time. I use it here with reference to the way in which utopian fiction offers a chronotope that imagines a future anchored in the present and the past.

2. The latter, Bakhtin argues, is derived from Einstein’s Theory of Relativity, in which time is the fourth dimension (1981: 84).
3. An earlier version of this chapter also examined examples of utopian fiction in the late nineteenth century: this was a critical time when the precursors of digital connectivities were being formed through telegraph and railways. I

analysed William Morris's socialist utopia in *News from Nowhere* (2009) which was written and published in 1890 in the core period of the second industrial revolution, just prior to the publication of *The Time Machine* (1985) by H.G. Wells. *News from Nowhere* (2003) describes an agrarian society in which people work because they take pleasure in it. It is a description of a socialist utopia in which there are no big cities, there are no factories and no system of money or private property. There is an imaginary return to oral history, to orally transmitted memory, with mass printed books and the press mistrusted in their representation of the past, and indeed with the past itself having become less important in a world where people's focus is on a joyous present. This technological nostalgia is accompanied with a strong retention in the imaginary of the sexual division of labour, and the second-class status of women. (See also Jan Marsh (1990). 'Concerning Love: *News From Nowhere* and Gender.')

4. The first outside broadcast in the UK was by the BBC on Armistice Day in 1937: with this the general public were able to watch on a television set the King laying a wreath at the Cenotaph in London. (Alexander 2000: 216).
5. Lionel Sims suggests that more recent archaeological research shows that the Neolithic period in northwest Europe saw a break from earlier Mesolithic traditions of Moon worship. Stonehenge has particular solar-lunar alignments which 'privileged night over day, winter over summer, dark moon over full'. Sims argues that it is 'designed to juxtapose, replicate and reverse certain key horizon properties of the sun with the moon's former religious significance' (Sims 2006: 191).
6. The work also brings to mind other references within English literature, most notably the memorable scene of a woman metaphorically sacrificed at dawn at Stonehenge in Thomas Hardy's *Tess of the d'Urbervilles*. Tess, pursued by Justice, goes to sleep on one of the stones, with the site described as 'The Temple of the Winds' (Hardy 1993: 345). By the end of the 19th century it was commonplace for people to bicycle to Stonehenge for picnics and concerts. Between 1919 and 1926 William Hawley made important discoveries through excavations around the stone that proved that the site was multiphased historically. This was then picked up further in the 1950s by R.J.C. Atkinson and has since become accepted (Atkinson 1956).
7. Sinclair's ZX machines represented a revolutionary technological departure in computing as the first small low-cost computers that could be readily purchased by the public and used at home: my job, along with around one hundred other women factory workers doing temporary low-paid shift work, was to take machines returned as faulty and run them through a yes/no test I could see on a TV screen and then, once the fault was diagnosed, accordingly repair each machine following instructions, soldering and wiring up new central processing units (CPUs) and memory chips before then

retesting. At the time, having never come across a computer except in school in the single computer 'lab' dominated by boys, I had no idea what the machines were or the era they hailed.

8. What do we call the person who studies memory? Are they an uneasy mixture of a biologist, a historian, a sociologist,? No, we have a name: mnemologist. A mnemologist may be defined as one who studies through literature, culture, sociology and media the trajectories and technosocial practices of memory, remembering and commemoration, in a given epoch, creatively connecting interdisciplinary tools drawn from across the arts, humanities and sciences. There is one earlier trace of this term that I found which I quote in full here which was a response to a Yahoo question 'What is a Scientist who studies memory called?' Under Best Answers someone called Marie commented. '...there is a word for the study of memory: mnemology. So someone who studied memory could term themselves a mnemologist, I suppose. I just never heard of anyone calling themselves that. ;-)' Source(s):Pediatric neurology resident. Marie 7 years ago' (https://uk.answers.yahoo.com/question/index;_ylt=A9mSs3XKdAIVZjsAtaFLBQx;_ylu=X3oDMTE1OXNrMjdwBHNIYwNzcgRwb3MDMTUEY29sbwNpcjIEdnRpZANtV0lVS0MxXzE-?qid=20080828142120AANUicI. Date accessed 21 March 2015).

PART II

Domains

Global Body: Birth

At the beginning of the First World War working-class British women were invited to write down in the form of letters their memories of maternity. The letters were sent to the Women's Cooperative Guild where they were put together to form a collection, *Maternity: Letters from Working Women* (1978) [1914]. The book of letters was part of a feminist campaign in the early part of the 20th century to establish maternity clinics and a maternity allowance for pregnant women.

The book went out of print for many decades and was difficult to access except in private collections and libraries. It was republished in 1978 by Virago and since then, within the global memory field, it has been republished in digitised form on the internet, where it is publicly available to anyone with an internet connection and may be downloaded for free. The collection includes the written voices of working-class women; the growing foetus is always referred to as 'the baby', without a name and without a sex. There is rarely any mention of men or other family, and only occasionally mothers. The predominant emotion of most women is fear: 'I do not think I was very different in my pregnancies to others. I always prepared myself to die' (Davies 1978: 136). They also expressed fear in terms of how they would afford to keep the baby, describing near-starvation and dreadful poverty. Many women mention using drugs to abort the foetus. They write of unwanted miscarriages and pregnancy losses which they have spoken to no one about, as well as the deaths of multiple children to illness, poverty and disease:

I have had four children, and all were born one year and a half after each other. My two eldest died in one week from whooping-cough, age five and three. Two of my children were still-born. I was very young at the time, and only wish this Maternity Scheme had come out years ago. I have a good husband, but we are childless, I am sorry to say. I am on many committees, and take a great interest where children are concerned. (Davies 1978: 97)

The women frequently express isolation, anxiety and then a sense of hope at passing on their stories through their letter ‘I do hope I have not done wrong in relating so much of my past, and that it may be of some use in the furthering of our scheme’ (1978: 32).

In stark contrast to these lettered memories of the 20th century are memories of maternity in the 21st-century Global Age. Babyview Ultrasound Scans 3D and 4D, based in Barnsley, Yorkshire UK, for example, offers mothers-to-be a number of packages that can be purchased with a variety of medical procedures included such as pregnancy progress reports, foetal sexing, growth assessments, as well as CD-ROMs of 3-D ultrasound images and thermal prints. The company’s website, <http://www.babyview.co.uk/>, has a section entitled: ‘Our Babies’, showing images of the ‘baby’ before and after birth and at various stages of gestation. Written testimonials by parents and wider family members are constructed to create a positive picture of what the company does. They emphasise value for money, how extraordinary the technology is, how clear the images are, what a fabulous bonding experience users had in seeing ‘their baby’, which is nearly always described as a boy or girl. The events are social, with partners and grandparents present at the scan:

Wow! So lovely to see him as a ‘proper’ baby! It was wonderful for the Grandparents to be able to get involved at last. Lovely warm gel and a chance to bond with the baby, not just a ‘bump’!!Thank-you x x. (Babyview 2012)

The website and its related ultrasound company is indicative of the fact that every year in the Global Age tens of millions of visualisations of the interior of the human body are captured, recorded and shared via connective technologies in the UK alone. National statistics on imaging and radio-diagnostic examinations carried out in the NHS in England show that the total number of imaging examinations covering the period from 1 April 2012 to 31 March 2013 was 41.1 million, compared to 40.2 million imaging examinations in the period from 1 April 2011 to 31 March 2012—an increase of 2.2 %. Of these imaging examinations 9.3 million were ultrasound tests,

which included those done for obstetric purposes (England 2013: 2). In general terms, 3-D imaging is being used to digitally preserve memories of historical artefacts and heritage sites (Bowdler 2013) with mobile mapping devices enabling the 3-D preservation of crime scenes (Starr 2014). But in commercial medicine 3-D imaging represents the most extreme end of the interiorisation of memory in the Global Age: the growth and prenatal development of a human life is digitised, witnessed, and subsequently shared and mobilised through the global memory field. While legacy medical media such as X-rays could, throughout most of the 20th century, take images of the human anatomy beneath the skin, these would need to be physically transported around the hospital or different sites, often by the patient him- or herself. X-ray plates remained largely within the domain of the medical profession. But networked digital imaging technologies, including ultrasound, are not only able to penetrate and record the innermost workings of the human body, the images they generate can be circulated, shared and reassembled in any location globally in which a human being has an internet connection and a mobile device.

These digital witnessing practices are experienced through personally and socially recollected narratives of gender as well as changing subsequent gendered life-stories for both men and women. A self-ethnographic study of a colonoscopy by Bordowitz analyses the experience from a male perspective of seeing images of his own colon projected onto the video screen as the procedure is being carried out. The process of looking is not only one of bodily displacement but also one of memory in which he witnesses his own body's gendered history. Bordowitz describes the memory of his feelings about being visually reduced to an 'asshole' and how this is articulated through recollected narratives of the male body and the production of particular discourses related to the AIDS epidemic (Bordowitz 2013). However, while these gendered dynamics of the global memory field are present in all medical imaging, they are arguably at their most intense for both men and women in industrialised societies with the now-routine ultrasound scanning of the foetus.

This chapter addresses the ways in which foetal witnessing through the digital technology of the ultrasound scan can be understood through the conceptualisation and theoretical framework of the 'global memory field'. I explore how this penetration of the field into the beginnings of human life and into the body of the mother is changing prenatal narratives of the self. Further, as suggested in Chap. 3, 'Global Memory', these are more deeply understood not solely through static methodologies that may

include analysing the discrete image of the scan, but also by understanding the image as part of a new form of memory-making and witnessing within a new paradigm of ‘mediated mobilities’ (Keightley and Reading 2014b). This involves tracing some of the trajectories of the memory assemblage of the unborn to reveal the complex gendering of memory in the domain of the body in the Global Age. The chapter begins with some history and context for obstetric sonography followed by an introduction to previous research on the ultrasound scan in relation to gender. Drawing on data from Facebook and YouTube it then examines the meaning, production and trajectories of memory assemblages of foetal witnessing within the global memory field.

DEFINING OBSTETRIC SONOGRAPHY

Obstetric sonography first began to be used in selective ways to investigate problematic or unusual pregnancies in the 1960s. Prior to this, knowledge of the interior of a woman’s reproductive organs and the growing foetus was attained through examination by a doctor or midwife using primarily external pressure on the pregnant woman’s stomach, as well as listening to the heartbeat of a baby using an ear trumpet. In addition, cultural practices had long developed that could, purportedly, ascertain the sex of the baby to be. *The Distaff Gospels*, a 15th-century French text on the subject translated into English, suggests that if a pregnant woman favoured listening to stories of jousting and craved venison and poultry she was evidently carrying a boy, but if instead the woman favoured dancing then clearly she was carrying a girl (Jeay 2006 [1510]). One website that draws on the *Gospels* reminds the reader that other traditional practices included making sexual predictions based on the woman’s pregnancy shape: a bump that is high up is said to signal a female baby, a bump that is carried low is the sign of a male baby; all out front is a boy and if the woman develops a wide bottom then it must be a girl; very bad morning sickness is said to signal a girl (Babycentre 2014). The feature ‘9 historical methods of Determining the Sex of an unborn baby’ includes holding out a key to the mother—if she grabs it by the fat end it’s a boy:

Perhaps the most popular gender determination myth is that a gold ring suspended on a string over a pregnant woman’s belly will tell you what she’s carrying by how it swings: Side to side for a boy, circular for a girl. It’s not always accurate, of course (Rodriquez McRobbie 2014)

Another traditional method was to sprinkle salt on the mother's head while she was sleeping. Depending on the name she utters upon waking (presumably such as 'Aagghrr !!! Why d'ya do that for? Idiot!') then this will indicate the sex of the baby. These tales and practices were usually carried out personally between the pregnant woman and her female friends, and perhaps a midwife. They were understood to be uncertain, and were embedded in the bodily knowledge and changes experienced by the pregnant woman herself. They were also processes that were not recorded through external means or memory technologies.

In contrast, rather than inherited knowledge and cultural practices of communities and women themselves (which were always 50 % right), obstetric sonography developed since the 1960s introduced the use of external technology to ascertain the health, and consequently the sex, of the foetus. The technology involves a cyclic sound pressure wave that penetrates through the mother's flesh and tissues in order to measure the echo or reflection signature. It is this that then reveals the details of the growing human foetus. At a technical level, the process involves a transducer which sends sound waves and receives the echo back. These waves are then transformed into a digital matrix which can be reformatted and processed to convert the data into an image which can be seen on a computer screen, whilst also saving the data for future use (Sprawls, Undated).

Nevertheless, the prime purpose of the image-making is to provide a picture of any potential medical or physiological abnormalities or differences in the foetus that may cause difficulties in the pregnancy. The most common reason for conducting the ultrasound at 12–13 weeks gestation is to do a nuchal scan to provide an initial assessment leading to a calculation of the likelihood of the baby having Down syndrome. Following the examination, the mother and any other partner or chaperone present are told the results and also offered a copy of the image in digital and sometimes in printed-out form, usually at an additional cost. At this stage of the pregnancy it is also possible to be told the anticipated sex of the baby, although this is more accurately detected at 20 weeks pregnancy when many later scans take place.

The image-making is technically conducted within the protocols of a medical examination in a hospital environment, but the image is also produced within commodity protocols, since in many hospitals the patient is given the option to purchase the digital image, and/or video of their first scan as a keepsake for their personal use. This emergence of the commercialised personal and social dimensions of sonography is further evidenced

by the growth of private companies offering 3-D and 4-D ultrasonography with an increasing emphasis on the personal and social keepsake status of the image as part of the memory narrative of the baby and family.

The practice of obstetric sonography has grown considerably worldwide since Ian Donald pioneered its development in Scotland in 1958 with subsequent take-up in the US in the 1960s. In the UK, 80 % of those offering routine scans also allowed for the revelation of the sex of the foetus if requested. In addition practice in most obstetric units allowed for companions to accompany the pregnant woman (Armstrong 2004: 20). All units in a study by Armstrong offered images to the parents, usually with a small charge (2004: 19).

However, while this experience is certainly much more common it is by no means universal: the use of obstetric sonography is uneven globally. While in the global north ultrasound is ‘a routine part of obstetric care’ (Stanton 2013: 1), in the global south, especially in Africa, access to obstetric ultrasound is poor (Stanton 2013). The memory narratives arising from ultrasound are thus *globital*—digitally and globally uneven—as a result of uneven economic access to and use of ultrasound technologies. It is also uneven within national populations in terms of intersectional inequalities of class and ethnicity that impact on the experience and affordances of pregnancy. The American Congress of Obstetricians and Gynecologists reported that in 2007, ‘approximately 71% of pregnant women in the US initiated prenatal care in the first three months of pregnancy’ but in contrast ‘black and Hispanic pregnant women were twice as likely as white women to receive late prenatal care (beginning in the third trimester) or no prenatal care’ (Gynecologists 2011: 39). Since prenatal care in the US routinely includes an ultrasound scan the extension of the memory field into the reproductive phase of human story making is certainly not evenly globalised but *globital*-ised. Similar patterns of uneven access and use of obstetric ultrasound is also evident in the UK. A report on ultrasound screening in southeast England in 2004 stated for example ‘It is apparent that there is a wide diversity of practice in the field of obstetric ultrasound’ (Armstrong 2004: 20).

A UK report also stated that provision was geographically uneven, with some regions routinely offering scans prior to 13 weeks and others only selectively. In addition, there are technical and legal variations. The UK report states that there was no legal requirement to capture the images, although once an image ‘has been captured there is a legal requirement to store it for 21–25 years. Policies regarding which images to capture vary between units. Some record all images, some have a selective

image-capture policy and others only capture images of suspected or obvious abnormalities' (Armstrong 2004: 50). The more privileged and powerful offspring of the planet will have images of themselves from before birth, while the world's poor, the socially, racially and technologically marginalised, will not.

GENDER AND SONOGRAPHY

Feminist scholars and activists have long been concerned with sonography and its impact on women, particularly in terms of reproductive freedom. The sonographic image has been described as reinforcing patriarchy through its emphasis on the individual foetus disembodied from the body and reproductive labour of the mother (Rothman 1986: 114); similarly, Rosalind Petchetsky's (1987) work drew attention to the cultural and political context of the uses of foetal imaging. She discusses the 'physical isolationism' articulated through the aborted foetus shown in the film *The Silent Scream*, which became a key form of propaganda used by the US pro-life movement in advocating that women should not have the right to legalised abortions: 'The autonomous free-floating foetus merely extends to gestation the Hobbesian view of born human beings as disconnected, solitary individuals' (1987: 63). She adds:

These still images float like spirits through the courtrooms, where lawyers argue that fetuses can claim tort liability; through the hospitals and clinics, where physicians welcome them as 'patients'; and in front of all the abortion centers, legislative committees, bus terminals, and other places that 'right-to-lifers' haunt. The strategy of anti-abortionists to make fetal personhood a self-fulfilling prophecy by making the fetus a public presence addresses a visually oriented culture (1987: 264).

Second wave feminists in the 1980s drew attention to the ways in which reproductive technologies such as the sonogram altered the narrative of pregnancy and birth, with scholars such as Ann Oakley (1987) arguing that giving birth to a boy, is very different from knowing that you have a boy growing inside you.

More recent feminist work, however, provides a more mixed and complex account of the social context and impact of the sonographic image. A study by Julie Roberts (2012) takes into account the ways in which the visualisation of the foetus in the 21st century is now also networked

and mobilised and thus also offers new kinds of opportunities for women to give voice to an aspect of life that was previously hidden and deemed to be outside public discourse. She argues that women are able to share experiences of pregnancy in pleasurable ways with members of the family and friends. Women and their families are also able to memorialise and remember miscarriage and pregnancy loss (Roberts 2012).

Although Roberts does touch briefly on questions of the meaning of witnessing foetal growth there is little work overall, as yet, that specifically discusses sonographic image-making in terms of its part in changing gendered human memory. How does the ultrasound scan and its circulation and transformation from a medical image into an image of selfhood raise questions about the intersections between gender, memory and digital technologies? The visualisation of the foetus, for example, may be seen as part of the privileging of visual memory over all other kinds of memory which can then remove the embodied pleasures of pregnancy. Yet, while it may be a 'technocratic takeover' of pregnancy which is changing the embodied experiences of pregnancy (Gammeltoft 2007) in terms of memory, as we shall see, it is more complicated.

Drawing on my own autoethnography, my experience of sonography in the context of the UK and the National Health Service is a complicated one. Prior to the two children I now have, I conceived twice and saw on screen both of those embryos very early on at five to six weeks. I saw one suspended shortly after he or she had died: the foetal heart of a seemingly perfect 'baby to be' had stopped beating literally minutes before. The second time, I saw another foetus that was without any sex or recognisable human shape at all: it was a molar pregnancy. More than a decade on I still marvel at the molar pregnancy image in terms of its beauty and the energy and libidinal tenacity with which the cells had continued optimistically to grow without a pattern that was human and which then resembled a bunch of grapes the size of my fist. I gave up at that point all thoughts of having children and had to be closely monitored for cancer, but the mnemonic images of those unborn stayed with me as much as the visceral and embodied experience of losing them.

Both of my subsequent children, a boy born in 2004 and a couple of years later a girl in 2006 were scanned at 13 weeks. My partner and I decided that we wanted to keep the sex of the baby unknown to us until the moment they were born. Thus while the sonographer and medical profession had some indication or knowledge of each foetus's biological sex we did not. We then kept the printed-out ultrasound scans of both children and when we put together our first baby photo album, for each of them, we included the images in the narrative alongside photographs

of me growing larger and becoming more pregnant. In between the two successful pregnancies was another pregnancy, another scan, another miscarriage. For my son, because of the previous miscarriage and molar pregnancy, there were scans at six weeks, 13 weeks and 20 weeks and then just before birth several times because he was breach and remained resolutely head-up; so, we have the printed-out images of all three scans of him during his growth inside me. For both children, we relate the memory of their beginnings of their and our family memory from both outside and inside my body within the bounded and discrete legacy media of carbon technology—a family album—that is part of a growing collection of family albums in our living room bookcase. We put a printed-out image of me pregnant, next to the scanned image of the foetus inside me, as the starting point of each child's story. We don't include the little one lost between our living children in the family album, although we include her in the stories to our children of how wanted they are, and each September I think of her.

For most parents in the developed world, the digital image that is captured and bought by or gifted to the parents of the foetus is then circulated to friends and family through email and social networking sites as the first image of their 'baby'. The foetus with only 13 weeks' life is constructed as 'baby', she or he is given a name and her/his sex revealed to the world. The baby as a gendered person is thus born socially through social relationships long before she or he is biologically born through entering the world from the woman's womb (Nash 2007). The memory of the life of the person is thus begun and the person's gender, hitherto neutral and hidden up until the point of birth, is already revealed, governing family and friends' narratives and relationships with the 'girl or 'boy'. Yet, the gendered female backdrop or background to the image of the socially born girl or boy is sublimated: when viewing an image of an ultrasound of a foetus, there is no caption that says 'Inside Anna/mummy's womb'; it is not done to admit that what I am looking at is the inside of my own body, or another woman's body. This embodiment of the memory and the story is not made explicit, I would suggest, because the woman turned inside outside invokes socially difficult and contradictory meanings that connote the woman's sexual history as well as reproductive identity and memory. Captions for the foetus therefore highlight the foetus and not the inside of the mother's womb or uterus.

On the whole, despite the far-reaching implications of this memory technology most established research on the subject does not explicitly examine the ways in which the sonographic image and practices surrounding it are intervening into gendered memory. The emphasis, rather, in studies within

the fields of medicine, psychology and gender studies is around three core thematics of identity, surveillance and sociality. These, nevertheless, do provide further evidence in relation to analytical trajectories suggested in Chap. 3 for how sonography is reconfiguring gendered memory in a number of critical ways within this interiorised domain of the global memory field.

PRE-NATAL ERASURE AND FORGETTING

Developments and improvements in image quality mean that ultrasound can now be used to find out the sex of the foetus much earlier on. However, according to a number of studies since the early 1990s, this knowledge is leading to parents terminating the pregnancies of female foetuses, in India and China especially (Zeng 1993). This, in turn, has led to a serious imbalance in these countries' gender ratios with more men than women in the population (Gentleman 2006; Katz 2007).

Foetal scanning thus results in a sinister form of patriarchal forgetting and female erasure: a forgetting of the loss and termination of a potential female human being's life. All those foetuses that could have become girls and women with lives and memories obliterated. This undervaluing of girls is not of course new to the digital era: girls and women have been undervalued in patriarchal societies for several millennia, notably in the use of practices of female infanticide within spiritual and cultural frameworks that did not see the personhood of a baby emerging for weeks or months after birth (Mungello 2008). The prevalence of aborting female foetuses could be seen as an extension of patriarchy's earlier forms of female infanticide (Mungello 2008).

However, it has not been consistently the case that earlier forms of female infanticide and the routine practice of seeing girl babies as 'disposable' were globally practised. In many cultures the practice of infanticide of both baby boys and girls was commonplace and socially accepted, suggesting that the historiographical emphasis on the predominance of female infanticide is in part 'a construct of the present projected onto the past' (Scott 2001: 1). Nevertheless, the global memory field, in extending its reach into women's bodies and into life before birth, effectively erases a female life before it is biologically born and with it even the *possibility* of memory: this is non-memory—outside of memory.

Is it more difficult, then, to forget an embodied baby girl who is murdered after birth through the practice of infanticide? Certainly the memory of infanticide remains through the material traces of bones and burial sites

(Scott 2001), while the termination of pre-natal girls with the foetus burnt or flushed away into the sewers is left only in the personal memory of the mother or parents. At the same time, though, this gendered absence is subsequently articulated through the silent haunting or rather non-memory within the demography of countries such as China and India where there are now fewer women than men (Gentleman 2006; Katz 2007).

The process of gendering and gendered identity construction through the intervention of digital medical technologies according to Grieshaber has led to the identification of sexual difference prior to birth so that parents increasingly are involved in constructing the once gender-neutral foetus with a gendered identity:

This occurs through choosing gender-appropriate names, discussing and purchasing gender-appropriate clothing (such as pink clothes for girl babies), and by describing specific attributes (such as a 'tiny little baby girl') to the fetus according to the sex. Knowledge of the sex of a fetus therefore extends possibilities for ways in which mothers and fathers begin constructing gendered realities about their offspring. (Grieshaber 1998: xx)

Lesley Larkin (2006) argues that ultrasound disciplines society into a strictly bifurcated view of gender. Thus, what individuals and societies also forget is the possibility of contingency, of uncertainty, of a question mark, of an imaginary time when it is possible to imagine a human being who is both male and female and neither. With all of my pregnancies I have always enjoyed these transgender imaginaries. The danger, then, lies in whether in the global north this obstetric practice will lead to a time when there is no longer an imaginary both/neither baby, one that accepts the indeterminacy of a polymorphous boy-girl. What already dominates in the Global Age are gendered bifurcated societies that govern a differentiated system of values for male or female human beings which in turn influence how girls and boys conceive of themselves in relation to the past and as part of an historical narrative.

Even when the gender of the foetus is kept as a surprise until the baby is born, the image that many parents retain from the obstetric ultrasound marks the beginning of life, and gender is retrospectively projected onto that image. When I look at the printed-out sonographic image of my son at 13 weeks gestation, I project onto the image my knowledge of his maleness, even though at the time I didn't know whether he was a boy or girl. This is echoed by Karen L. Carr, who describes how the ultrasound image

requires us to construct ‘pregnant subjectivities’ that include both the foetus-baby and the mother. She describes how ‘both of my children were dressed in their names the day we saw them on the ultrasound screen’ (1995: 14). Their gendered names changed her view of herself as well as her foetus-babies who were

no longer floating polymorphous possibilities—boys stared out at me from behind a screen which had suddenly granted them gender. No matter how much I thought that I had thought and theorised my way out of gender, when my boys were called into shape by the sight of language of the ultrasound technician, there existed, from that moment on, both separate and apart from me, boys in my body. My body in boys. The fragmentation was no more complete or incomplete than it had been before I was allowed the sight of my two male fetuses; it was only more real (Carr 1995: 14).

Meredith Nash argues that ultrasonic technology in the Western world, but also increasingly in Asia, especially China and Singapore, enables ‘personhood to precede biological birth’ (Nash 2007) with the foetus coming into existence ‘as a newly forged technological being by consequence of its ability to be ‘seen’ (Nash 2007). Drawing on Foucauldian theory, and ideas of surveillance, Nash argues that ultrasound in privileging the personhood of the foetus, threatens to ‘disappear’ women. This is echoed by Soetnan in her study of the use of ultrasonic technologies in pregnancy in Norway; she argues that a corollary of the symbolic gendering of the foetus with these scans is the ‘prosthetically de-skilled maternal body’ (Soetnan 2005: 140).

Ultrasound in terms of memory and witnessing involves the parents and foetus not only in a process of surveillance by the medical profession but also of ‘self-surveillance’, which feminist media scholar Rosalind Gill has defined as part of the media’s construction of a post-feminist sensibility. Women are then caught up in a ‘double entanglement’: ‘our baby’ is compared to the digital records of other foetuses to establish ‘normality’. Organic memories based on ‘mother’s time’ based on when the last menstrual period did not come, and the memory of sex, is overridden by the velocity and temporality of machine-time generated from sonic to visual data memory that tells the sonographer how big the baby is and therefore how long it has been growing. Ultrasound memory traverses the organic and inorganic, the inside and outside, extending private meaning into the public so that we are ‘suspended somewhere between memory and its performance, presence and lack, transgression and suture’ (Carr 1995: 19).

In Western culture in the transition from oral to written cultures, the knowledge gained by looking, gathered by the eye, took over from that

gained by hearing and listening, gathered by the ear (Fox Keller 2003). Over the past 2000 years, visual cultural knowledge has gained greater ascendancy over other kinds of knowledge (Jenks 1995). Part of this, accelerated further through the media of the big and small screen, is the dominance of visual memory over other kinds of memory. Within medicine, the practice of dissection and looking, drawing and imaging forms an integral part of both knowing and remembering the human body. Digital technologies have become an extension of the eye, of looking, of forms of dissecting and penetrating the body, but which allow both the medical practitioner and the patient to see the interior of the body themselves. With ultrasound that which was previously not visible and only organically embodied as corporeal memory fully experienced by the mother becomes that which can be seen and remembered by others externally. Thus, José van Dijck contends that ultrasound images of fetuses ‘stimulate intervention in the biological fabric, turning the fetus into an object to be worked on’ (Van Dijck 2007: 107).

At the same time, however, obstetric ultrasound gives greater valency to the memories of men or lesbian partners—who may be the biologically and/or significant others to a pregnant woman and who may, or may not, be looking forward to taking a role as a biological and/or social parent. There is a pleasure in the process of the ultrasound scan (Roberts 2012) which is also a pleasure, I would suggest, in the ‘shared witnessing’, the connective memories that are made possible. Heteronormatively oriented studies, or those with heterosexual couples as the focus, have shown that the externalisation of the foetal witnessing image positively impacts on the memories of fathers and intervenes into memories of parenthood and grandparenthood in new ways. An analysis of fathers and their reactions to ultrasound pictures of the foetus argues that this is changing the relationship of fathers to their offspring: for men, seeing ‘their baby’ on screen made it more real and escalated their awareness of the baby and their impending fatherhood (Draper 2002). Men’s accounts of ultrasound seem to suggest that the memory of the ultrasound has much greater valency for them as it becomes one of their strongest memories of the pregnancy and then of the baby (Draper 2002).

Bodily or organic memory expressive of the embodied knowledge of the mother, felt via the mother’s body by the father externally, has less valency and then becomes secondary to the disembodied visual memory provided through the ultrasound scan. The velocity of the ultrasound images—the rapidity and immediacy with which the father can see it—also means that fathers’ temporal relationship to the foetus and the baby

is changed: their bonding with their baby happens earlier and prior to biological birth through their own sonic-image witnessing and memory of the social and shared act of the ultrasound. At the same time, however, such studies also suggest that ultrasound memory then has the additional effect of endorsing the already dominant heteronormative Western narrative of human development and pregnancy (Peel, undated).

FROM PERSONAL TO PUBLIC MEMORY

Ultrasound witnessing changes gendered memory assemblages of pregnancy, human life and parenting: digitisation and connective media extend personal memory rapidly into a social memory event, a form of transmediatised entertainment with publicly shared memories. In the early days of ultrasound, the scan was done with the screen turned away from the mother, but it has become common practice for the screen to be seen by all who are present. The personal corporeal memory and embodied knowledge of the mother is translated and visually witnessed on a screen by the sonographer, the mother herself, and often the father and other family members. Hence one respondent in Draper's study remarked on 'seeing the little legs waving about and it was real close, real good show' (Draper 2002). The experience is opened up for public viewing and public memory. The ultrasound image becomes articulated through the photograph and the family album and marks a passage from liminal foetus to postliminal baby (Draper 2002). With social networking this is even more marked, with memory assemblage of the foetus–baby very often circulated from mobile phones through social networking sites to family and friends. The modality of the scanned images of the early stages of human life, once securitised between medical staff within the hospital for medical reasons, is now mobilised beyond the hospital walls. The memory assemblage is shared and mobilised by parents via iPhone, email, Facebook and YouTube. Fixed images are kept as part of the developing family album: they are used as flickering screen savers on parents' computers and phones. The foetal assemblage is printed out and stuck on fridge doors. They are shared with close family, with friends. But they are also mobilised beyond the local to the global via the internet and mobile phone, as parents upload ultrasound videos to YouTube (Roberts 2012).

In February 2014 YouTube had a quarter of a million results for the search term 'ultrasound baby', with the dominant themes of those who post moving images being that of determining the baby's sex and emphasising the movements of the baby. For example, one video 'Baby at 12

Week Scan Ultrasound Amazing Video!’ (Terry Reed 2007) for example had by 2014 38,622 views. The videos also then become reassembled through comments that re-emplac the memory of the video in gendered ways. Thus, ‘Baby Girl Ultrasound at 18 weeks with 437, 678 views at January 29th 2014’ met with warm enthusiasm by most commentators about the fact that the video is of a girl (Lee 2009). The video was posted on 12 February 2009, and the baby, the public is then informed, was born on 3 July 2009 at 2.43 weighing 7 lbs 1 oz. Her name is Leila Baobai Yang. The video also drew attention from a commentator ‘trevwrc’ who commiserates with the mother that they are having a girl as the baby will grow up, marry and leave her. The mother and other commentators tell him to ‘go back to India’ to which he responds “bak to india? Wtf u on bout? im from uk dimshit’ The globital memory of the pre-natal human is mobilised through raced and gendered globalised narratives. I don’t know where the baby was born, or where they live or where she is now, but this public memory of her persists.

FROM PRIVATE LOSS TO PUBLIC MEMORIAL

Ultrasonic technologies are also changing the memory assemblages mobilised around pregnancy loss. In some cultures, there are rituals and memorials that have long been established to memorialise the unborn, both those lost through chosen abortion and through miscarriage. I was always struck by the absence of such rituals or memorialisation within Western culture in comparison with East Asia. In Japan, for example, there are special shrines to the ‘water-babies’ or *mizuko*—those lives lost before birth—where people leave offerings (Harrison 1995). The practice has also taken hold in parts of the US where Zen Buddhism has become part of culture (Wilson 2009). My own pregnancy losses were marked by the adoption of Eastern memory practices: in my garden I built a small ‘spirit house’ for the ‘mizuko’ or ‘water babies’ who never made it into the world. Friend’s children would lay offerings of sweets and toys and called it the Fairy House.

Despite around one-third of pregnancies not making it to full term (Cosgrove 2004) pregnancy loss within Western culture has conventionally been unacknowledged (Renner 2000) and is generally held only within personal memory, in the memory of the couple, or shared in quiet moments privately between women. The digitisation of the foetal image, however, in enabling the much earlier ‘personhood’ of the baby prior to biological birth, which is then shared with family and friends, also means that if the

foetus does not come to term, the loss is also felt and known beyond the parents. This has a particular impact in terms of ‘silent miscarriage’ where the foetus dies in utero and the mother’s first knowledge of this is to see the dead foetus on screen to be told there is no heartbeat (Peel, undated). As Mantell suggests, if children fail to materialise at all, or are aborted or miscarried, ‘they become ghosts within our lives’ (Mantell 2003).

It is thus significant that there are now on-line memorial websites dedicated to the loving memory of babies that died before term or who were stillborn. The site *Angel Babies Memorials* for example includes videos in memory of lost babies, all of which begin with the first ultrasound image or ultrasound video. ‘In Loving Memory of Cate and Cole’ has almost 6 million views since it was uploaded several years ago (Angel Babies Memorials 2009). Increasingly, this new memorial practice within the global memory field includes websites dedicated to enabling mothers to share their ‘mizuko’ practices. The Eastern mizuko memory practice is increasingly shifting from that of a memory of spirit framed within long-established temple practices to secularised on-line memory practices (De Paulo 2013).

Pregnancy loss comes in many forms and ultrasound also provides an aftermath of images which perhaps humans should not see. I am left with the most extraordinary memory of my ‘molar pregnancy. This was something I had never heard of until I saw to my initial horror the tangle of grape like growths inside my womb that could never become a baby, where the placenta cells had gone mad and overgrown and taken over the development of the foetus. Yet, on-line at home, because of connective memory—the global memory field—I was able to view and compare the remembered image in the hospital with other digital images uploaded by medical practitioners as well as from other women. My horror through connecting my personal memory with collectivised memories was then transformed into wonder at the libidinal forcefulness of a life which had continued to replicate despite the pattern being totally wrong and barely human. I still feel great affection for that life form ‘Maizie’ and enormous gratitude for my own life: prior to ultrasound I might have died like women before me, as a molar pregnancy, especially one that is left inside, increases the chance of intra-uterine cancer.

TRAJECTORIES OF THE GLOBAL MEMORY BABY

Digital media technologies are intervening into memories of the development of human beings and their subsequent gendered life-narratives; research also suggests that the ultrasound scan itself produces its own kinds

of memory, including both the digital memory and the memory of a process which is important as a milestone in both men and women's responses to a pregnancy. How, then, can we understand these multimodal changes and adaptations to human memory and the ways in which they are gendered?

In this concluding section, I summarise some of changes to gendered human memory in the Global Age by tracing the ultrasound image as a memory assemblage in the global memory field, highlighting these in relation to the six suggested analytical trajectories of (trans)mediality, modality, extensity, viscosity, valency and velocity. This is especially revealing when compared with the recollections in *Maternity: Letters from Working Women* cited at the beginning of this chapter. Tracing these trajectories reveal some of the complex changes over the past century of material and energetic gendered political economies of people and what it means for gendered human memory. See Table 5.1 Global birth. [near here]

To conclude, the memory assemblages of the foetus and the pregnant mother have considerable continuities—since what remains is the mother with her foetus, but this is augmented through the phase-shift of digital and connective technologies. Tracing the trajectory of (*trans*)mediality reveals that the singular organic memory is transmediated through sonic media into a moving image of the foetus. The digital image can also be printed out and put into a baby album. Since the material is also digitised it can be stored, shed and reassembled into a variety of formats through connected digital media. The gendered memory of the foetus thus becomes one that is multiple and transmedial as opposed to singular and organic.

Secondly, in terms of the trajectory of *velocity*, the temporalities of the ultrasound image multiply the temporalities of the memories of the pregnancy, adding to the slow gestation time of the baby, the rapid and extensive memory assemblages of the sonogram shared via social and mobile media. The organic growing memory of the foetus is fixed in time as a series of sonic waves that are transferred into digital 1s and 0s. The temporality of the mother is augmented by the temporality of the machine. The temporality of the foetus is overridden by the temporality of the father. In all cases, the data can be rapidly transferred, transported and mobilised.

In terms of the dynamic of *extensity*, there are few limits to the journeys of the image of the foetus. The memory in digital format of the foetus at a certain point in its growth is limited only by the infrastructure of the global memory field: it is distributed and can be downloaded from anywhere on the globe with internet access: the limits are related to the degree to which users mobilise the image as well as the evident limits of the technology itself

Table 5.1 Global Body: Birth

<i>Trajectory</i>	<i>Pre-Global Age</i>	<i>Global Age</i>
	Memories of pregnancy in <i>Maternity: Letters from Working Women</i> 1914 Diary entry Birth	Memories of pregnancy through ultrasound and in the global memory field
Transmediality	Organic, embodied, felt bodily changes by mother. Some transmediated into letters	From felt organic memory of the mother to sonic to image on screen; to circulation on social media; to possibly printed-out image
Velocity	Gradual sense memory; women remember pregnancies, birth, losses over their lives	Ongoing temporality of nine months pregnancy of mother; interspersed with rapid imaging of baby related to medical norms
Extensity	Memory of pregnancy gradually shared between mother, then father, and then wider circle through the letters. Shared globally once digitised and made public on internet in 2012	Pregnancy shared with group assembled around sonogram includes family members and medical practitioners; image shared with family and friends; mobilised through internet
Modality	Organic, personal description	Organic memory; plus medical and commercial modality which is transformed to social modality
Viscosity	Changing over time	Sonic image memory 'fixes' the memory of the foetus-baby in time
Valency	Individual. Then shared one to one. Letters collectivise memory	Individual. Plus sonogram has valencies with other sonograms on-line
Axes	Horizontal between women; shared vertically once recorded through letters	Horizontal and vertical

in terms of its penetration into different localities. While it may be that the image is regularly mobilised and downloaded in areas of high penetration such as Britain and the United States, in countries such as India where internet penetration is still as low as 22%, its circulation will be much more limited. Whereas for millennia the personal individual memory of the growth of the baby was kept within a particular embodied locality, with digital media the

foetal image is one that has no limits to its point of origin; it becomes public data and, subsequently, a public memory, a public record, a public memorial fixing in time a foetus who may or may not be born to live as intersex, as a boy, as a girl, as woman or a man, or transgender.

In terms of the dynamic of *modality*, data that was once captured for a particular purpose, in this case for medical purposes, is then reused for another purpose, that of social memory and entertainment. The protocols, rules and conventions of the medical image which usually includes a date stamp, and the patrilineal surname of the mother, makes the mother invisible while the foetus is centralised in the assemblage and then distributed and reassembled and changed into something for the public eye.

At the same time in terms of tracing the *viscosity* of the image, within the global memory field the memory assemblage is stuck and secured, in contrast to the memories of mothers from the beginning of the century which remained fluid though more localised with oral and written culture. The memory assemblage of the foetus remains forever fixed in time with its particular date stamp: this is very different from the ever-changing, ever-growing organic image of the mother.

In terms of the dynamic of *valency*, prior to connectivity the image would have perhaps remained discretely disconnected from other kinds of images: but the combination of digitisation and connectivity means that within the field of memory the image may stick to related images, helping mothers to be, or indeed mothers to feel part of a collective or connected community. The image is no longer retained within the medical file of the individual mother or baby, but rather it is linked to digital images within other kinds of social networking sites such as the images associated with the mother's Facebook page, or a YouTube video related to foetal imaging.

CONCLUSIONS

What I hope I have shown is the contradictory and complex process by which digital media technologies are intervening in memories of the development of human beings and their subsequent gendered life-narratives. On the one hand, they provide new kinds of memories for women that help with, for example, pregnancy loss; but they also serve to bifurcate further an already gender-split world, resulting, in some countries, in the termination of female foetuses as well as a termination of the imaginary of both sexes. Finally, the ultrasound memory, while bringing others into the memory assemblage, in many ways takes women and women's bodies out of that memory process. As Petchetsky argued 30 years ago:

we have to restore women to a central place in the pregnancy scene. To do this, we must create new images that recontextualize the fetus, that place it back into the uterus, and the uterus back into the woman's body, and her body back into its social space... . One way out of this danger is to image the pregnant woman, not as an abstraction, but within her total framework of relationships, economic and health needs, and desires (1987: 287).

As Jacqui Alexander suggests in *Pedagogies of Crossing*, by using a multimodal approach and by being attentive to crossings and trajectories it is possible to more fully illuminate and understand the complexities of technology and gender:

Who is remembered—and how—is continually being transformed through a web of interpretative systems that ground meaning and imagination in principles that are ancient with an apparent placement in a different time. Yet, both the boundaries of those principles as well as what lies within are constantly being transformed in the process of work in the present: collapsing, ultimately, the rigid demarcation of the prescriptive past, present and future of linear time. Both change and changelessness then are constant. (2005: 292)

In the next chapter, I take the reader outwards from the imaginary, and the body to explore the contradictory and complicated ways in which gender is remembered in the global age in the domain of the family and home.

Global Home: Life

In William Shakespeare's *Othello*, Iago declares, 'I will wear my heart upon my sleeve/For daws to peck at: I am not what I am.' In one of the interviews I conducted for this book, a young woman declared that her favourite memory on her mobile phone was one of herself performing in *Othello* in China¹ (Student from China, female, aged 25, London, 2015). In the Global Age we wear our digital hearts about our person and display them to the world through our mobile phones. Mobile and social technologies mean that human beings now, in effect, are clothed in an archive of the profound, as well as the seemingly mundane. Building on the previous chapter that examined memory in the domain of the body through the theme of birth, this chapter takes as its vantage point the domain of the global home and the theme of gendered memories in everyday life.

In this chapter I draw on data from two empirical qualitative studies in 2006 and 2015 to provide some 'thick description' (Geertz 1973) for tracing the trajectories of memory from the domain of the home in the Global Age. The chapter extends Melissa Gregg's concept of 'presence bleed' (Gregg 2011) to the idea of 'memory bleed', showing how there are new trajectories for gendered memories crossing the borderlands between private and public memory. Global memory assemblages through mobile devices are held close to the human self, next to beds and under pillows at night; they are carried with individuals in the day time, clutched in hands,

tucked into pockets and squeezed into handbags. At the same time, from the mobile phone men and women continually mediate between work and home (Frizzo-Barker and Chow-White 2012: 584–5) capture, mobilise and download gendered memory assemblages that involve images to create ‘intimate visual co-presence’ (Ito 2005: 3) which also involve everyday sounds and texts within the global field.

This chapter examines how the cultural practice of using mobile phones within networked communications is producing new trajectories of gendered memories that are modifications of mnemonic practices associated with legacy memory technologies. Continuing here with the use of a mediated mobilities methodological approach (Keightley and Reading 2014) the gendering of memory trajectories is traced from the vantage point of the domain of the personal and the domestic sphere in terms of its mediation through the mobile phone. The development of the mobile phone from something that resembled a household brick in the 1980s to a multimedia device the size of a small mirror has, in the course of the 21st century, more than any other digital technology enabled the development of new languages, practices and forms of cultural and media memory as well as, surprisingly, a reaction and return to legacy memory technologies by the born digital generation.

Empirical data from two UK studies (2006 and 2015) is correlated with wider international data from secondary sources. My 2006 study conducted in London had clear gendered implications in terms of the mobile phone and its uses by men and women, suggestive of a mobile family gallery or the wearability of a gallery of images of the family that could be shared in both domestic and workplace contexts. The second study, also conducted in London, enables an analysis of the stability and discontinuities of the gendered memory practices the earlier study revealed. The 2015 study was particularly important in the light of the development and uptake globally of smart phones, tablets and other digital mini devices that have multimedia functionality connected to the internet.

Both studies involved in-depth interviews with a shared framework of semi-structured questions to enable comparison. The 2015 study involved two sample groups: the first group consisted mostly of mothers in their 40s at a southeast London school. The women were selected as digital migrants but with children who were digital born. The second sample in 2015 examined mobile phone use by young adult women who were all of an age that meant they were digital born, focussing on a sample of

international students at King's College, London. This provided access to young people aged between 21 and 32 within a globalised context, with all the respondents being temporary visitors to the UK but in regular contact with family and friends from their home countries, which included Chile, China, France, India, North America and Germany. The studies concentrated on female respondents as a purposeful response to an ongoing gap in research and to the call within cell phone studies for more research focussing on the mobile phone in women's lives (Fortunati 2009)

The female-centred qualitative data sets from both 2006 and 2015 are used to explore how mobile phone memories have trajectories that highlight new articulations of gendered identities and memories that cut across what were separate private and public lifeworlds. The mobile memories discussed by interviewees demonstrate the transmedia of global memory-making, a range of velocities and extensivities of memory-making, as well as multiple points of stickiness or valencies between mobile memories and other memories on the internet or generated through social networking platforms. The mobile phone provides men and women with a personally curated but networked public gallery, as well as being a communication device that records every utterance, every transgression, every movement in space and time.

Arthur C. Clarke had imagined in the early 1960s that there would be devices which would enable people to communicate one-to-one from and to anywhere on the planet which would include a form of geospatial mapping to prevent people getting lost (1962). However, as Chap. 4 showed, it was Marge Piercy in *Woman on the Edge of Time* who imagined that men and women in the future would have a communication-memory-mapper or 'kenner'. She conceived of this as a personal device strapped to the wrists like a watch, which would include the means to communicate with both a portal to a wider knowledge bank as well as a backup for personal memory experiences and personally acquired knowledge (Piercy 1979). The main character from the future in Piercy's novel, Luciente, said that she felt 'naked' without her kenner (327). It is not without significance then that 'naked' was the most common noun given by women respondents in the 2006 and 2015 studies in response to a question about how they felt when they had either lost, forgotten or were unable to use for technical reasons their mobile phones. The mobile phone thus clothes men and women, and yet, as shall be seen, some also suggested that without their mobile phone they would feel free from some of the oppressive constraints of gender.

Piercy's imaginary of future human dependence on digital devices is highly prescient (O'Byrne 2012: 8). There is one crucial difference, however: Piercy's *kenner* is used in a world where human beings are androgynous, where there are no longer gender differences or inequalities of gender. In the 21st century in advanced and developing capitalist economies there are major gender structural inequalities and gender differences in terms of memory capital. Women in my studies, especially in 2015, are aware of their dependence on these devices, with the younger generation enacting a conscious return to legacy memory technologies and mnemonic practices. Building on the technofeminist approach of Judy Wajcman (2004) I show how gender, memory and technology facilitate and restrain each other as people and memory technologies co-evolve.

The chapter begins with some historical and social context relating to mobile phone use within a global context as well as to the context of London in particular, where the 2006 and 2015 studies were conducted. The chapter then discusses how mobile phone use has been theorised in relation to gendered identities, largely in ways that ignore the significance of personal, cultural and media memory. The chapter then outlines the empirical work linking its findings to broader theoretical insights into digital and cultural memory using the analytical framework of global memory.

HISTORICAL AND SOCIAL CONTEXT OF THE MOBILE PHONE

The variety of nouns for mobile phones worldwide is significant. While some nouns for the device refer to and connote cellular technology such as the US 'cell phone' and Portuguese 'celular', other names denote the mobile talk and mobility provided through the device, such as the UK 'mobile', the Danish 'handy' and the Japanese 'keitai'. Some nouns, in Mcuhanian fashion, suggest how the technology is seen as an extension of the human body such as the Korean 'handphone', or an extension of our clothing such as the Turkish 'cep telefonu' or 'pocket phone'. The nomenclature connotes that men and women treat the phone as an extension of the body and mind and in some cases spirit—a sense of spiritual 'amazement' is for example suggested by the Israeli 'pelephone' or 'wonderphone'. In this analysis the UK name 'the mobile phone' or 'mobile' is used in keeping with this book's thesis that the global memory field affords new mobilities and mobilisations for gendered memories and memories of gender.

In the 1980s, mobile phones were extensions of the landline telephone and were used primarily for one-to-one voice communication. While these communications became embedded in the organic memories of those talking, these were not simultaneously recorded, captured or distributed to data centres around the world. Once a text messaging service was added then the memory modalities of the mobile phone changed. Once a camera was added along with internet capabilities human beings moved into the era of carrying not just the emotions of the human heart upon their sleeves, but, a digital archive with its range of world science, history and cultures. By 2015 mobile phones routinely included cameras, digital voice recorders, digital music albums, and access to a worldwide network of documents, books, newspapers as well as blogs, social network sites, micro network sites and billions of webpages. The smaller scale of the device also meant that the mobile phone was rarely separated from everyday life. Even in the 2006 study the mobile phone was the last thing women touched at night and the first thing touched in the morning, prosaically because of its alarm function (Reading 2008).

Historically, although a form of mobile telephony had been developed for in car use by the 1940s, its uptake was limited by a lack of cellular technology that could allow for communications to travel beyond its original transmitter. The technology was also bulky and heavy. By the 1970s, a first generation of analogue mobile phones developed, the size of a handbag. Second-generation technologies which used digital cellular networks or 2G developed in the 1990s. The first precursor to smart technologies that included a range of facilities from a mobile phone to calendar, notepad and email was the IBM Simon, first sold in 1993. With 2G technology came SMS or text messaging which provided an ongoing record of the content of communications. Throughout the 1990s the demand for mobile phones increased in developed countries and with it the requirement for the rapid transmission of data with access to the internet.²

Memory is critical to mobile phones and smart phones in particular. The latter have two kinds of memory: a changeable SIM card and the internal memory of the phone itself. In addition, mobile phones are effectively connected to a worldwide network of memory archives: data is distributed, traceable and retrievable globally through and via multiple commercial data centres that remember and store key information about users, including bank passwords, emails, photographs and contact lists. At the same time, manufacturers have added further internal digital memory rather than relying on the small amount of data being held by the SIM card.

Indeed, memory became a major driver in the sale of mobile technologies, with advertisements for mobile phones in the noughties stressing the capacity of a phone's memory in relation to the device's diminishing size (Next Generation Mobile Trends and Technologies, 2007).

THE LOCAL AND THE GLOBAL

In 2013, according to Wikipedia's long entry for mobile phones, there were 6, 800,000,000 phones in use for a world population of 7,012,000,000. Hence, globally, there are 97 mobile phones in use for every hundred citizens. The highest number of mobile phones in 2014 was in China at 1,227,360,000, which is 89 phones per hundred citizens: but in terms of penetration this is low in comparison with Nigeria which has 94 phones per hundred head of population and extremely low in comparison with Hong Kong which has the highest number of phones per hundred head of population in the world at 236.8. The country with the lowest number of mobile phones per head of population is North Korea at 8.3, closely followed by Cuba with 11.2, and Ethiopia at 21.8 (Mobile Phones, Wikipedia 2014).

Although mobile phone use is bitty and uneven, *global*, rather than global, globalised penetration is greater than for other digital technologies. Unlike any other digital technologies, including the laptop and PC, the mobile phone is an inclusive technology which has enabled people in developing countries to leapfrog legacy communication and mnemonic technologies (Horst and Miller 2006). A UNESCO report drawing on 4,000 studies globally shows that mobile phones are accessed and used by the world's poor to read in new ways (UNESCO 2014). While other digital technologies have shown a much greater digital divide, mobile phone use crosses class and gender (Horst and Miller 2006) with mobile technologies transforming 'societal notions of discourse and knowledge... With increased popular access to information and knowledge anywhere, anytime.' (Traxler 2009: 10). Mobile phone use in developing nations has enabled new forms of communication not only horizontally but vertically from state and governments to its population, as well as from populations to governments and banks (UNESCO 2014). Nevertheless, there are evident inequalities: the figures above, for example, refer to *all* mobile phones but the most up-to-date smart technologies dominate in richer countries, with populations in poorer countries using second-hand mobile phones.

THEORIES OF GENDER AND MOBILE PHONE USE

Within communication theory, as well as within media and cultural studies, the landline telephone was always relatively under-researched (Goggin 2006: 3), although gender was a significant factor in telephone usage and telephone practice in relation to fixed-line technologies (Moyal 1992). The landline telephone enabled women in the public sphere, in paid work outside of the home, to connect with their domestic role into the personal sphere (Rakov 1993). This, as I will show, is a significant factor in thinking about how memories are mobilised through mobile phones between the public and private spaces.

Some studies suggest that cultural difference is more important than gender in terms of differentiation in communication and language use in mobile phones (Baron and Campbell 2012). Yet, at the same time, structured gendered inequalities worldwide, which have excluded women from particular opportunities and restricted women's roles to the private sphere, mean that mobile technologies have a particular significance for women. Mobile technologies are, for example, proving useful to women in lifelong learning. Excluded from public spaces, limited in terms of education, and lacking the resources of the city, some rural women in India continue with elements of their education through their access to and use of mobile technologies (Basubramanian et al. 2010). The inter-sectionalities of gender with ethnicity, sexuality and class in terms of mobile use is also highlighted in the UK; a study with young British-Pakistani Muslim men and women shows how mobile technologies are used by young British-Pakistani women in the Global Age to create 'a space of one's own' (Green and Singleton 2007).

Other key studies on gender and mobile phone practices highlight how inequalities of class and economy produce multivariant uses and impacts of the technology on women's social roles and identities. Mobile phone integration into low-income families has complex effects, that can serve to both empower and reinforce established gendered inequalities (Doron 2012). Green and Singleton's study points to the need for more research in this area to develop a more dynamic concept of mobile identities and the ways in which memory is part of them (Green and Singleton 2007).

Research in the fields of photography and digital cultures is useful in this regard. Long-standing work on legacy photography evidences how photography in its earliest popular use was a method for memorialising

family memory members (Sontag 1973). Daniel Rubinstein has suggested that the mobile phone has redefined this popular use of photography so that it now captures and memorialises the ordinary aspects of everyday life that hitherto would have gone unrecorded except within personal memory (Rubinstein 2005: 117). Kato et al. argue that mobile phones through the recording of everyday images of family life combined with their rapid circulation and social sharing are also then responsible for new kinds of image language that are being developed (Kato et al. 2005: 300–310). One study showed women sharing images of their babies with husbands at work, with one woman reporting that she used Facetime to show her husband images of their baby teething (Frizzo-Barker and Chow-White 2012: 585).

GENDER, MEMORY AND THE MOBILE PHONE

Although a number of studies have examined some of the gender dimensions of mobile phone use there is very little work in the fields of cell phone studies, media studies, gender studies or memory studies that take as its vantage point the specific use and practice of the mobile phone in relation to changes to personal and public memory. Frizzo-Barker and Chow-White's (2012: 586) work points to the uses women are making of various apps to monitor and record elements of their lives. Larissa Hjorth's (2009) excellent study of mobile phones and gender in South East Asia touches on issues of memory, and points to the need to explore further how mobile phones are part of a gendered digital and global reconfiguration of memories that are personal and generated from domestic and household life.

As Chap. 2 has shown, changes in social communication technologies impact on cultural memory forms, languages and practices (Clanchy 1993; Ong [1982] 2012). While neither Ong or Clanchy are concerned with digital or mobile technologies they do suggest that cultural memory practices are, in part, historicised in relation to revolutions in communication technologies that then enable or are adapted by human beings seeking to make records of the past outside their own personal consciousness. Thus, Le Goff suggests that there are five phases of collective memory, beginning with oral cultures, followed by various forms of record including writing and recording in the current phase of mass-mediated memory (Le Goff 1980: 54–5). Walter Ong shows how in the change from orality to literacy there was a shift in the relationship of human beings to time and space (Ong 2012).

Pierre Nora (1996) conceives of the impact of the technologies of industrialisation as resulting in a change in modern societies from face-to-face of memories to fixed places of memory. This idea was extended by Paul Antze and Michael Lambert who argue that in postmodern societies there is only one point of reference that is fixed—the site of memory within the human body (Antze and Lambek (1996: xiii).

Building on these observations, the mobile phone in late capitalist society is not simply another memory prosthetic but, rather, something that enables the human body to be enmeshed or ‘clothed’ in a network of digital memories. The device itself is situated at the interstices, the interchange, the border or boundary between the public and private, between organic memory and machine memory. Hence, Fortunati argues that the mobile phone, in being carried in handbags, tucked into pockets, strapped to specially designed holsters and accessories, is effectively ‘sucked’ inside men and women’s clothing, blurring the boundary between organic and machinic memory (Fortunati 2002: 24–62). What Campbell and Park see as the ‘wearability’ of the mobile phone in contrast to the portability of other digital devices is then conceivably different for men and women. The kind of clothes that men and women wear, the accessories, the boundary between private and public, body and other is articulated differently for men and women as part of the performance of the complex spectrum of femininity–masculinity in all cultures. As Horst and Miller (2006) have observed, many women’s handbags have long included a pocket specially designed to hold and keep tidy the mobile phone, but men in contrast tend to carry their phones in a jacket pocket or on a belt. They observed that in some cultures the phone is carried by men like a gun in a holster.

Furthermore, in contrast to Pierre Nora’s argument that the earlier milieu of cultural memory is collapsing into the body, and which is then the main organic site for memory, conversely the organic memory body becomes extended into a form of extended consciousness through the wider digital network. The mobile phone, unlike the photograph album or the paper diary, links gendered embodied organic memory site to a globalised network of data centres, cables and distant computers which are themselves operated by humans with gendered embodied memories.

One difference arising from this relates to how the mobile phone is utilised outside of men and women’s bodies in public spaces. An early study by Lycett and Dunbarr (2000) published in the journal *Human Nature* argues that for men the mobile phone is what they term a ‘lekking device’ or a cultural ornament that reminds those around them of

the owner's status and wealth (Lycett and Dunbarr 2000). In contrast, women on their own in public put their phones on display as a talisman to keep them safe (Plant 2002); they use the mobile phone as a form of electronic bodyguard in which the phone acts as a barrier signal to prevent unwanted attention from others, especially men (Fox 2006: 14). Thus findings from a study of 197 US college students at a large educational institution showed that women saw their phones as more useful than mace in providing them with 'imagined mobile intimacy' that could enable security (Cumiskey and Brewster 2012).

The mobile in public use by women acts as visible material reminder of woman's connections to the invisible global memory field: it reminds its user and those around her that the woman may appear to be alone and isolated, but that she has connections to wider social and memory capital that can include family, friends, work colleagues as well as links to the emergency services. In this way, the mobile phone provides 'absent presence' (Gergen 2002: 228) or in memory terms a wider collective consciousness, or 'connective' memory (Hoskins 2011a).

Further, studies show that the mobile phone is used by women for a broader range of activities than for men (Puro 2002: 19029): studies show that it enables women to micro coordinate household and family matters from work, bringing the personal into the public, and the public into the private (Dobashi 2005: 219–237). Mobile technologies, rather than resulting in people's personal lives being invaded by work, are 'a strategic tool for women' (Fortunati 2009: 32) enabling the self-management of multiple affective and household responsibilities whilst doing paid work (Wajcman, Bittman and Brown 2008).

This idea of the mobile phone as facilitator is supported by Larissa Hjorth's research on gender and mobile media in the Asia Pacific region (Hjorth 2009). Hjorth observes that in Hong Kong the mobile phone functions as a portal to the past, as well as a communication device in the present. Wallpaper images on young women's phones in Hong Kong serve to reterritorialise the past into new locations and contexts within what is a rapidly changing 21st city environment: 'Meeting in a café with friends and sharing images of the past is about providing a discourse, a microcosm of an "imagined community" whereby the personal is divulged in socioculturally specific way' (Hjorth 2009: 187).

Hjorth's research amplifies Koskinen's (2007) thesis that phone images are being used to reterritorialise and re-create imagined communities as nostalgically remembered imaging communities (Hjorth 2009: 187).

Technologies such as camera phones speed up the process of recording, editing, deleting or disseminating experiences; so much so that often the event can only be experienced as mediated memory (Hjorth 2009: 44). Respondents capture images of everyday life in which the mobile phone was experienced not just as a means of communication but as an important tool for young women in particular to document the everyday and to provide a source of ordinary memories of close friends. Women in this way use mobile phones for social and affective memory purposes: they use them as a form of ‘group memory exercises’, with the camera phone as a memory collector (Hjorth 2009: 216).

What these studies suggest are a number of questions to explore further in terms of how the combination of globalisation and digitisation through the global memory field may be understood as changing gendered memory through key trajectories of movement. In what ways, for example does the mobile phone enable women to hold new kinds of gendered transmedial memories? What kinds of transmodalities do mobile technologies afford women? What new extensities are offered for women by and through mobile technologies? What new kinds of velocities and multiple temporalities are afforded by mobile technologies? The next section explores these trajectories of the global memory field through comparison of the data and subsequent analytical themes that emerged from the empirical work conducted in London in 2006 and 2015.

THE 2006 AND 2014 MOBILE MEMORY STUDIES

Any empirical work on memory and mobile phones needs to be understood within a wider awareness of the communicative context and practices of the particular culture in which the research is being conducted (Kim 2002: 63–4). In 2006, in the UK, where my first study was conducted, almost 90% of people aged between 16 and 34 owned or had use of a mobile phone (Young people and ICT Survey, Department for Education and Skills, 2006). Facts and Figures from the UK Independent Regulator and Competition Authority for the UK Communications Industries (OfCom) showed in 2014 that the proportion of adults with a mobile phone in 2014 was 93%, with 61% using smart phones. Fifty-seven per cent of adults with a mobile phone used them to access the internet (Ofcom 2015).

In addition, in any study involving gender there will be different ways in which gender will be structured and articulated within different national

and regional and local contexts. Some aspects of gender will be shared across cultures and some will be specific to particular cultures. Thus an observation by the Japanese scholar Dobashi (2005: 227) that women in Japan make less use of digital technologies such as the PC within the household in comparison with the use that they make of the mobile phone makes much more sense in a culture where the PC is deemed to be the property of the household and family. In Japan's strongly patriarchal society women are less economically active, and most married women do not work outside of the household; thus the mobile phone, which is personal to women, is understandable as a form of micro-control (Dobashi 2005).

In contrast to Japan, in the UK, over 50% of women with children under the age of five are economically active. Overall, 73% of women between the ages of 16–59 do paid work in comparison with 84% of working-age men. Even where women are single parents almost half of them are economically active (http://www.womenandequalityunit.gov/women_work/key_facts.htm). The increase in the numbers of women with children working outside the home, in combination with government policies that seek to make the lives of working parents easier by providing early years nurseries, pre-and after-school care, means that the majority of UK parents are dependent on their children being cared for by other people in the form of nurseries, schools, breakfast clubs, afterschool clubs, nannies and childminders (Changing Lives of Today's Children 2007). Furthermore, since my 2006 study was conducted, UK legislation has been passed supporting more part-time and flexible working, as well as the possibility of men or a significant other of either sex to take a more active role in what has become parental leave. The empirical material discussed in this chapter thus needs to be viewed within the context of developments in technology and national and local changes in gender roles at work and home, with transformations taking place between the date of the first study conducted in London in April and May 2006 and the second study conducted in London between October 2014 and February 2015.

The first qualitative study in 2006 involved interviews with 15 respondents, all female, from different cultural backgrounds aged between 20 and 35. There were three focus groups each with four participants as well as fifteen individual interviews. The second qualitative study in 2015 involved two different samples from two locales; a south London primary school and King's College university campus in central London. Interviews were conducted with a total of six female respondents from the first sample of students and five female plus one male respondent from the second sample of parents.

In both of the studies (2006, 2015) respondents were asked the same series of semi-structured questions, starting with being asked about their mobile phone in terms of when they bought it, where and how they carried it with them, where they charged it up, when and where they would turn it on and off or into different modes in various private and public contexts. In both studies (2006 and 2015) respondents were asked questions in relation to the manner of their use in terms of their emphasis on voice calls, texting, taking photographs, sharing photographs, listening to music, accessing the internet, emails and social networking sites. In both studies the respondents were asked to choose a ‘favourite’ image on their phone and then asked to talk about it. The interviews and focus groups were then thematically analysed using the trajectories of analysis outlined in Chap. 3 on the global memory field. Comparing the descriptions from the first study with the second there are continuities but also disjunctures and new variations in terms of gendered assemblages’ mobilisations across the trajectories transmediality, velocity, extensity, valency, viscosity and modality.

In my studies in the UK in 2006 and 2015, none of the women shared their phones with other people: *all* of the respondents had their own mobile phone, with agency over them in every respect, including password privacy settings. This may seem unremarkable but is indicative of the women’s privileged economic and social class and the context of the UK as a wealthy late-capitalist economy. The women were able to keep and preserve their digital data and digital assets if they so wished through the temporal and spatial changes of their lives. This is in stark contrast to studies with women in developing countries or with women in low-income households, in which married women very often do not have their own mobile phone but share it with other members of the household, whereas men always have their own personal mobile phones which are also password-protected (Doron 2012). Thus, women in northern India gave up their mobile phones and their digital assets upon marriage: the device which holds data on the women’s pre-marriage social network is thus erased from women’s lives as part of the established patrilineal process for women that involves disempowering them through natal alienation as they must enter the household of their husband and mother-in-law (Doron 2012). This global unevenness is also found in highly developed capitalist societies, however, and is indicative of the intersectional inequalities of gender, class and ethnicity. Thus, in a study of Latina farm workers in southeast Ohio in the US, men always had better phones than women, with women giving up their mobile phones if they lost their jobs, relying on using their partner’s or husband’s device (Garcia 2011).

The results of my studies in London, are to be understood within this deeply uneven *global* context: I am absolutely not arguing that my modest scale results are indicative of the status and mnemonic practices of all women: poor women in the UK, especially migrant workers, and women in non-Western contexts have less access to and agency over digital memory assemblages. On the other hand, this study with privileged women suggests what happens when women do have economic and social agency over their mobile memories.

In the next part of this chapter, I reveal the gender of memory and memories of gender within the global memory field through tracing the field's trajectories.

THE VELOCITY OF MOBILE MEMORIES

Tracing the trajectory of velocity reveals that the temporalities of the storage of data and images became multiplied and folded over time rather than simply compressed or speeded up. In the 2006 study, to preserve key memories or reminders women kept analogue or material backups of data. Many women kept a paper-based contacts book or birthday book that then replicated their contacts list in their mobile phones. Respondents also said in the 2006 study that there were certain SMS messages that they wanted to preserve for a long time. One respondent after the death of her father had a ritual of never deleting the most recent message until another message had come in: she linked deleting the most recent message from her father to the death of her father and wished that she had kept his final message. Nevertheless, mobile phones in the 2006 study had less connectivity and less in-built memory: thus respondents regularly deleted text messages in order to make space for new ones.

In the 2015 study, however, women rarely deleted text messages, preserving personal and distributed archives of whole conversations documenting the ordinary aspects of their lives. Women carried with them the mundane records of messages from partners asking to them to pick up groceries on the way home, urgent requests to send their mother-in-law flowers for Mothers' Day, reminders from dentists and doctors for children's appointments, times of school parents' evenings and arrangements for children's playdates. Female students had correspondence with classmates, reminders of assessment dates, messages of affection from far-away loved ones. However, respondents rarely went back through their messages to review them or read them again. Women's mundane texts revealing

the fabric of everyday life are like a wardrobe of old clothes that are kept but never worn.

The capacity for networked cloud storage developed since 2006 had significantly changed the velocity and temporalities of mobile memories by 2015. In 2006 the length of time for the preservation of digital memories was compressed. Photographs were taken with a view to immediate consumption: ‘old’ photos were those defined by respondents as taken six months or a year ago (Respondent B, female, aged 30, focus group 2006). The rapid velocity and compressed temporality of the mobile phone memory assemblage was framed within a mnemonic context in which images would be lost because of the short duration of the legal contract users held for the phone, or the knowledge that they would soon buy a new model of phone (Respondent D, female, aged 28, focus group 2006).

By 2015, in contrast, the gendered memory assemblage had multiple speeds and temporalities. Respondents made a distinction between the data on their phone, such as their photographs and messages, which were preserved on other computers through the cloud, in contrast to the mobile device itself, which all respondents considered to be a disposable artifact. The digital born sample of female respondents frequently lost their phones and yet did not see this as a problem because precious data was backed up to ‘the cloud’ or data centres. Hence the earlier sense of the short-term duration or lack of durability of the digital image had shifted into one of distributed longevity.

At the same time, however, the value of the images themselves had changed. The abundance of digital memories had diminished their overall value which was bound up with a sense of temporal nostalgia:

When we used to come back from holidays as a kid we used to have a slide show and invite people round. That was really important. We might show my mum photos of where we were, but it’s not the same. It feels so throwaway, disposable in comparison, you can take so many photos now. Whereas my mum would take 24 and we would value them and look at them together. (Respondent female, F, 42, married, two children 8/10, 2015)

What was also evident in 2015 is that intergenerational temporality was discontinuous:

At the moment there is a whole older generation we can’t communicate with digitally. They do have phones but they are old-fashioned ones, not iPhones, they can’t receive images. My mum has never bought anything

on-line. The kids love to send emoji messages but that cuts out their grandparents. (Respondent female, F, 42, married, two children 8/10, 2015)

This was as true for women in their 40s as those in their 20s in 2015. This was particularly important in terms of the relationships between grandmothers, mothers and daughters and the ways in which mediated memories were mobilised between them. The digital born generation were readapting their mnemonic practices to include legacy media to mobilise messages and memories to grandparents. One 22-year-old female respondent said she wrote letters and postcards to her grandparents because ‘they like them’ (Respondent female, U, 22, 2015). Another woman said:

I used to share lots of photos with my mum, via a folder in the cloud. But she’s not very good at looking at them, she gets confused. So now I try to send the pictures through email. (Respondent female, V, 24, 2015)

Tracing the trajectory of velocity reveals how, within the global memory field, mnemonic practices are temporally ‘folded’³ into legacy practices of mobilising memories in those women who were ‘born digital’. For example, the women in their 20s in 2015 identified more with some legacy mnemonic practices of their grandparents’ generation, than those of their parents who were migrants to digital technologies:

Me personally I have a counter-reaction to the digital. I prefer to write cards. I love to go to Paperchase.⁴ I like to write cards and have something physical. Everything is just digital and you can’t touch it. ... I remember when I was a child computers could suddenly break down and you could lose everything, like all your images, and that affected me. So I always now have diaries. And books that I make. I used to write blogs when I travelled. When you travel you have so many photos so now I do something that is more quality over quantity. You don’t value the picture anymore. (Respondent female, U, 22, 2015)

The same respondent said that in her use of the internet when she was growing up as a teenager, she routinely engaged in the sharing of ‘selfies’. Yet I would suggest that this ‘self-surveillance’, which Rosalind Gill (2007) argues is an integral part of young women’s postfeminist sensibility in the 21st century, is shown here to alter over the course of the lifetime in terms of mnemonic practice. Significantly, by their 20s the digital born women respondents had developed a form of resistance to the routine mobilisations of autobiographical memory capital through the glo-

bital memory field. They rejected ‘self-surveillance’, seeing it as a form of control through the perpetual documentation and media reach over their bodies, faces and digital narratives:

I prefer face to face conversations though. You can only have a conversation on a superficial level via my phone or the screen ... I used to share a lot of photos on Facebook and then it felt annoying; you depend on the technology to give you something, like lots of likes; like when people are at concerts and they record it. And I think just enjoy the moment. I would take something like the ticket—its physical and I keep it to remind me... a lot of people take selfies because they want people to say ‘You look so pretty today’. The internet turned into something where it is so much about appearance... when I was younger the internet was not like this. Why does it matter what you look like? (Respondent female, U, 22, 2015)

I just don’t find it very compelling to put every meal that you’ve eaten out there. I mean who cares?... I think there is way too much over-sharing on the internet. ... ‘Look at me I am having such a good time.’ (Respondent female, V, 24, 2015)

Tracing the trajectory of temporality reveals other transformations for women between the 2006 and 2015 studies. The growing abundance of digital memory assets during that period led to the development of social media platforms that included the automatic deletion of images shortly after opening, which accorded with a push for people to have the right to have data erased (Mayer-Schonberger 2011). ‘Snapchat’ was thus a preferred app for the digital born respondents since it included a time limit of between 1 and 10 seconds for viewing, after which time the content is hidden from the user’s device and deleted from Snapchat’s servers.

One of the consequences of the app and other autodelete platforms is their apparent use for sexting and the sexual exploitation of girls and women. Although the pictures themselves can be deleted, the practice developed of recipients taking photos of the screen itself, hence preserving the image or idea of the image.

I do screenshots of other people’s Snapchats and so, in effect, have saved more of other people’s than my own. ... I do screenshots because often some things I feel I can’t read quick enough before they going to be deleted and then it ends up being saved on my phone. I have lots of friends who are teachers, for example, who send me mistakes by their students. (Respondent female, V, 24, 2015)

The respondents raised the issue of exploitation through the mobilisation of pornographic images. One respondent described being forced to look at images of bestiality on a mobile device when she was younger by a group of boys on the street and another digital born woman described mobile pornography being used as a weapon to shame and humiliate her by older boys and girls as she was walking home from school. This echoes Natasha Walter's (2010) observation that teenage boys brought pornography into the classroom on mobile devices from about the age of 13 and used it to intimidate, 'tease and discomfort' girls (2010: 102). Informally produced mobile pornography also raises new questions of issues of consent and harassment in relation to women and girls (Haysom 2012). In Quebec, the mnemonic practice of taking screen shots of images that would expire led in 2012 to ten teenage boys aged between 13 to 15 being charged with child pornography offences as a result of having screenshots taken from Snapchats of sexually explicit acts by girls on their phones (Lorang et al. 2016).

VISCOSITY: THE GENDERED FIXITIES OF DIGITAL DATA

Tracing the trajectory of viscosity, or how data stretches, changes, is fixed or flows reveals a number of transformations and continuities between the studies on mobile use, gender and memory between 2006 and 2015. In the 2006 study, most women did not know how to transfer their data to a new phone or how to back up data to a PC. This led to respondents keeping old, disused mobile phones, even if they were no longer accessible. The old phones, with their data, were casually preserved and stored in the back of cupboards and drawers. One respondent described how she kept a disused mobile phone in a box in the bottom of her wardrobe because it had text messages on it from a former boyfriend. The data was stuck or fixed within the artefact since she did not know how to transfer it and she did not use the phone, but she could not, nevertheless, jettison the phone because that felt like letting go of the memories of that relationship.

By 2015, women respondents in both samples had a more fluid, active relationship with their personal memory assets or capital. The 2015 study revealed that women used various mobile apps to reassemble and craft digital memory assemblages; they would remodel photos and create short animations; sometimes on their mobile phones, but also on tablets and other mobile devices. This was important to the digital migrants who were parents of digital born children.

When I think about animation and stuff on your phone—I think it’s amazing—as a way to collage things together. ... for example with my daughter and her little friend—they used the phone to make a little animation with it. Somehow, I see it as helping their creativity and their storytelling. (Respondent female, D, 40s, married, one child 7, 2015)

The same female respondent reported using the mobile phone and its imaging capabilities not as a form of self-surveillance in the sense of Rosalind Gill’s postfeminist sensibility but utilising the viscosities available to provide a new form of memory mirror to counteract the sexism of patriarchal society:

We don’t have many mirrors in our house, but my daughter, she takes photos of herself and makes little animations... she loves playing the little videos of herself back—she hears her voice—I think the phone and the ipad is giving my daughter a greater sense of herself. (Respondent female, D, 40s, married, one child, 7, 2015)

The younger generation of women in their 20s, the born digital generation, did not take ‘selfies’ that were publically shared anymore but rather had developed the mnemonic practice of using the mirroring effects of the mobile as an independent private performance space. One young woman, for example, said that she used the mobile phone to record herself singing but very definitely not with the idea of publicly sharing her voice: instead it was just to record it for herself, with the phone providing, in effect, an aural mirror to her voice as a young woman (Respondent female, Z, 23, 2015). The viscosity of the global memory field, I would argue, is important for girls in an age in which popular culture still continues to symbolically annihilate girls and women.

THE (TRANS)MODALITIES OF GENDER

Tracing the transmodal trajectory or the ways in which memory assemblages change their status in terms of codes, conventions and functions that enable or deny content between 2006 and 2016 reveals the amplification of the connections between the home and public spaces with particular implications for gender and the gendering of memory.

In both 2006 and 2015, women described how they would tuck their phones into dressing gowns and jeans, wearing the mobile as close as possible

to their bodies, even around the home. All women in the 2015 study, except one, slept with their mobile phone by their bed. Some respondents even kept their phone under their pillow at night, since it was not only used as an alarm clock but was also used as a handy torch: thus one woman said she kept it under her pillow in case her children woke up and she needed to go to them in the night (Respondent female, B, 39, married, two children 5/8). Placing the mobile under the pillow at night, in effect, acts as a gendered mnemonic for the mother: she is reminded before she sleeps of the ongoing nightwork that she may be called upon to do. Similarly, the one female respondent who, unusually, did not usually keep the mobile phone under her pillow or by her bed, admitted that she kept her phone as close as possible when her husband was away, 'for security purposes in case someone broke in or something' (Respondent female, E, 40, married, one child, 5, 2015). This respondent said she felt extremely anxious if her phone had run out of charge or she was unable in a particular locale to obtain a mobile phone signal: she worried that the children's school would not be able to phone her at work. Another woman said, 'I feel like I have to carry my phone around with me all the time if I am not with my children. Especially if I am working and travelling' (Respondent female, F, 42, married, two children, 8/10, 2015). This was a predominant pattern with all the older women with children.

The physical device of the mobile phone is thus a transmodal reminder of home and family that women said they frequently touched and carried. Some described how they would hold it on the train to work, not so much to look at, but as a talisman of home: 'It's rarely out of my hand, if I am out and about' (Respondent female, A, 42, mixed-race, married, two children, 8/10, 2015). The mobile phone in this regard reminds the parent—in this case the mother—of the ongoing though out-of-sight needs of her children, and the presence of those looking after her children.

What was also evident was that in both studies the mobile phone enabled new kinds of modalities of the memory assemblage. Interviewees in both studies said that the kinds of events and activities that they recorded on their mobile phone camera or video facility were different from those created from their digital camera use. The difference was that respondents always had their mobile phone with them, whereas they had to make a conscious effort to remember to take their camera. Consequently, respondents described how they would take photos of events they had not predicted, as well as largely capturing the ordinary and sometimes mundane activities of everyday life.

Women's domestic and childcare activities, historically devalued in memory terms in favour of milestone legacy events such as birthdays, weddings and holidays, are thus being accorded memory capital through mobile social media. Hence, one female respondent in the first study who worked as a nanny described how she would take photographs of the children in her care and the kinds of activities that they engaged in together throughout the day so that she could show them to the children's mother, her employer, when she returned from work. She wanted a record to share of 'what a lovely time' she had effectively given the children in her care as part of her job (Respondent female, G, 27, interview, 2006). A young mother in the first study described how she would have MMS and text conversations with her own mother while she was looking after her own children and her mother was looking after her brother's children. They would share the photos in real time or later through the handset when they were together. Her mother would take photos of ordinary but critical moments that included her niece with an empty plate or tucked up in bed soundly asleep (Respondent female, F, 30, interview, 2006).

What is significant here in terms of gendered memories is that the hitherto largely invisible everyday repetitive aspects of women's lives in the family are recorded and 'archived' through the capture of 'mundane' images and data. In her study, *What Mothers Do: Especially When it Looks like Nothing*, Naomi Stadlen writes:

What I did at home seemed invisible and intangible. Perhaps my mothering was nothing after all. I only began to get a sense of having achieved something when our children were older. Then I could see that, one by one, each vulnerable newborn had grown into a viable person. (Stadlen 2005: 6)

Mobilising 'mundane' gendered memory assemblages provides a new kind of record of this hitherto taken-for-granted and invisible aspect of what has been conventionally women's domestic role. It allows not only a conversation between women about childcare and mothering, but also a record to be made of those moments that bespeak a long process of domestic and affective labour: the image of the sleeping child is a metonym for the repetitive chores and affective labour of the mother, nanny or grandmother leading to the success of secure and peaceful sleep of the infant at the end of a long day. The image of the child's empty plate is a metonym for the meal shopped for, cooked, and successfully fed to the fussy toddler; the child on the swing in the park is a metonym for an

activity that may occur around the same time every day and go unrecorded in comparison with the special big trip at weekends and in holidays. These are not the conventionally ‘special’ public moments of holidays, birthday parties, namings, and weddings. They bespeak the maternal labour of the apparent ‘nothing’ that mostly mothers do and have done for generations: the mundane, the affective, the everyday that over years accrues to produce the viable human being.

This also accords with a study by Pamela Salen, who examined how people visualise memories of home: she argues that memory is critical to the ordinary space called home and that it involves a continual process of storytelling about the home (Salen 2014): in this way the mobile and social media extends the telling of those stories of particular aspects of ‘home’, mobilising them beyond the home to the public sphere. The indications from my studies also extend Green and Singleton’s (2007) thesis that mobile technologies are particularly important for women in providing a space for the self: by mobilising the seemingly mundane, whilst also domesticating the technology, this simultaneously publicises the domestic domain in ways that valorise and affirm this aspect of largely women’s unpaid work.

This was also articulated in terms of respondents reporting special but ordinary acts to preserve the ordinary legacies of mothers and grandmothers. Thus one 2015 respondent mourned the digital loss of a recipe recorded from her grandmother just before she died and which the respondent had as a digital keepsake on her phone which sadly she then lost, ‘The recipe was for brioche, a kind of sweet bread, and she usually made it one day in the year and everybody loves it. But now it’s gone’ (Respondent female, W, 25, 2015).

Furthermore, a transformation seemed to have occurred in terms of the modalities of memory in which, conventionally, within patriarchal cultures, women are the object and men the subject of cultural discourse. This was aptly summed up by one digital migrant thus: ‘People used to take photos to say something *about* the subject of the photo, whereas now for social media, people take photos to say something about themselves as the person taking the photo (Respondent male, C, 40, married, two children, 5/7, 2015). As another respondent said: ‘Now I take the photo if I know I am going to send it to someone’ (Respondent female, U, 22, 2015). In the Global Age, I would suggest, there is a reversal of the subject–object dynamic of the remembered image which arguably disrupts the fixities of the subject (masculine, male) object (feminine, female) mnemonic.

THE (TRANS)MEDIALITIES OF GENDERED MEMORY

Exploring the trajectory of (trans) medialities in both studies between 2006 and 2014 reveals further transformations and continuities of gender and memory in the Global Age. Very few respondents in 2006 described printing out photographs taken on their phones. This was also the case in 2015, with no respondents using carbon mnemonic technologies—paper family albums. However, one difference, afforded by the development between 2006 and 2014 of on-line print-on-demand facilities, was that women reported that they created their own ‘books’ as mnemonic gifts.

I occasionally print out and do a special book. Bearing in mind I have young children—that’s appalling! We have no photo albums! We used to have them around the house and in frames. We still look at photos but on the computer. The boys sit and look at them... we also have quite a lot of videos. A lot of the boys’ memories are triggered by the videos and images. They relive these videos. (Respondent female, B, 39, married, two children, 5/8, 2015)

The creation of small books of photographs or making a selected special gift of a framed paper photo were used as mnemonic gifts for the older non-digital generation. The viewing of the images was also then done face-to-face in ways that respondents described as creating intimacy that was tactile and family-centred rather than looking at images through the screen, which felt impersonal and work-like:

When we go back to my mum’s, we then look through the albums we sent. It is nice to look through the physical album together. I associate staring at a screen with work.... Looking at emails etc. So it’s nice not to have that with the albums. I find screens all a bit detached. (Respondent female, E, 40, married, one child, 5, 2015)

I would suggest that there is a generational temporal folding that is evident in tracing the trajectory of transmediality. Tracing the *transmediality* of memory reveals how memories move across and are transformed between different digital media: in addition, by the 2015 study it was evident that women mobilise memories within the global memory field to tell different parts of the same story world, deploying what Colin B. Harvey has termed ‘transmedial memory’ (Harvey 2015).

The digital born generation are returning to analogue and carbon-based memory practices for particular mnemonic activities: Thus, one younger woman used a giant wall calendar, having tried out and then rejected the digital calendar to act as a daily reminder on her phone; another had a whole project sending friends and families postcards rather than e-cards; one much preferred reading what she called ‘actual’ books rather than e-books but used e-books as well since they were convenient and portable but not as pleasant to handle and keep.

GENDERED MEMORY EXTENSITIES

As I shall show, tracing the trajectory of extensity, or the ways in which the gendered memory assemblage travels, or not, from its beginnings, exposes a number of contradictory entanglements. Although the mobile phone provides the opportunity to share and connect domestic and affective memory assemblages globally within engendered spacetime, this extensity enmeshes women within patriarchy in ways that they experience as oppressive.

Female interviewees in the 2006 study said that they had often bought their mobile phones with the imaginary that they would be able to take photos and easily message distant family members. Yet, how they actually used the technology in practice was disappointingly limited. They often felt frustrated that the technology did not ably support sharing, or that the practice of doing so would be too expensive. One female respondent said that she had wanted to be able to take regular photos to update her mother who lived in Australia about the birth of her niece, but, when her niece was born she found that the technology failed to work (Respondent female, E, 30, focus group, 2006). In the 2006 study women used the multimedia message function and were able to send low-cost multimedia images via social networking platforms, rather than using the early technology of MMS.

By the 2015 study, tracing mnemonic extensities had changed dramatically for women in terms of not only sharing an image but also in terms of such images being further mobilised, distributed and saved in multiply networked global locations. Another major difference from 2006 was extensity in terms of the scale and scope of women’s digital capital assets that have the potential for new kinds of narrative of the gendered self in the future through a stream of data. A report by the death-care industry in the UK showed that the average Briton in 2015 had eight on-line accounts, storing not only their personal mundane and treasured digital

memories, but also their digital memory assets, including digital books, music and films.⁵

Tracing the trajectory of extensity exposes the ways in which the mobile phone provided access for new mothers to the global library and archive afforded through mobile connection to the global memory field. Women reported how they accessed a wider network of mediated narratives of motherhood as well as to wider cultural knowledge, daily news sources, YouTube, and music:

I got my first mobile phone when I was probably 24, I am now 32. I have a small daughter. I started to have a smart phone when my daughter was born; because I was alone with my child a lot and I hadn't many people to contact and so I would be alone for around 10 hours. But I was busy with her, and the phone was like a portal to the outside world. If she was sleeping and I was wheeling her in the buggy I could listen to music; I could read a book in the park while she was sleeping. (Respondent female, X, April 2015)

The new two-way extensities of the mobile phone to both share and retrieve digital capital assets was a lifesaver for stay-at-home mothers of babies and toddlers—and indeed the one stay-at-home father.

In the Global Age the mobile phone might be said to afford women access to mnemonic and social assets that, arguably, transform the experience of motherhood in contrast to the previous epoch. In *The Feminine Mystique* (1963) Betty Friedan had called the experience of women's loss of identity with marriage and motherhood the 'problem with no name'. Women, in Friedan's study, described the erasure of intellect and selfhood that arose from the repetitive work of domesticity and motherhood, combined with social intellectual and cultural isolation of being at home, as suggested by one mother of four children who left college at 19 to get married:

I can do it all, I like it but it doesn't give you anything to think about. ... I'm desperate. I begin to feel I have no personality. I'm a server of food and putter-on of pants and a bedmaker, somebody who can be called on when you want something. But who am I? (Cited in Friedan 2010: 10)

However, although mobile technologies evidently offer new opportunities for mothers through linking the private world to the knowledge and cultural affordances of the public sphere, the global memory field

is, at the same time, felt by some women to be an oppressive net in which women are surveilled and enmeshed. Respondents described being unable to think their own thoughts or be independent of their family and its needs. One woman said that if she were to lose her phone she would actually feel a huge sense of relief at not being constantly on call as a mother and wife; another woman described leaving her phone ‘by accident’ at home; another described the panic and then relief of forgetting to charge it. The global memory field facilitates aspects of the work of motherhood but it also then extends its reach into spaces that would have once been private or where for a moment a woman might have momentarily ‘got lost’, ‘disappeared’ and experienced solitude and escape from the continual demands of nuclear family life:

If I lost my phone now, though, I would feel unconnected to my husband and the things that I have to do. ‘Please buy some bread’ and so on, but I think very quickly I would feel a sense of freedom... I wouldn’t have to do all that! I think I would feel free, free of the pressure to be reachable all the time! Free of the pressure to check it all the time! ... I think you always feel a bit *occupied* by the phone: without the phone you are much more on your own from a negative and positive side (laughs) And I wouldn’t have Google maps so I would *have* to find out my way *on my own*. (My emphasis. Respondent female, X, April 2015)

It is not without significance that this respondent uses the word ‘occupied’ rather than preoccupied. Women are networked within a patriarchal matrix: the global memory field prompts the woman, reminds the woman to do this and do that. And through doing this, doing that, the woman also is being this, being that in terms of performing her gendered roles. It is also not without significance that like all of the other respondents, from both 2015 samples, she cites Google maps as one thing she would be without if she was off grid, unconnected to the global memory field. She would, she thinks, *have* to find her own way, ‘*on my own*’ (Respondent female, X, April 2015).

In both studies, the mobile phone handset itself was used to share images with people who are physically co-present. In some cases this might involve sharing images of their own children with their children, sometimes as way to occupy them in situations where the children were required to be quiet and patient. Images were also shared in the pub with friends as well as in the office with colleagues.

However, in the 2006 study, memory assemblages were predominantly shared with people who were proximate with family members. At that time, the mobile phone was like a portable family album (Reading 2008). In 2015 it seemed that women were prepared to share their memory assemblages more widely through social networking sites: nevertheless, the emphasis for women seem to be, as in the first study, to use mobile phone memories to deepen and add further quality to already established relationships, rather than to share the memories widely as a form of self-publicity.

One difference, clearly related to the increase during this period in the number of women working in the public sphere in the UK, and to the modest increase in the participation of men actively parenting young children, is the way in which the digital migrant male and female respondents described how they would use their handsets to show images of their children to colleagues. This is clearly a major difference from legacy media: whilst one might carry, perhaps, a small photo to share with colleagues at work, the mobile phone is generating the practice of sharing a greater variety of images from the domestic sphere in the public sphere.

Overall, both studies showed that mobile memories are mobilised by women to traverse the public and private in new ways. They are used to provide testimony of the hitherto hidden, private world of parenting and child-care. This is also bound up with changes in family and workplace structures arising from the increase in numbers of women working and the increased use of commodified childcare or extended family care in postindustrial societies.

VALENCY: STICK WOMEN TOGETHER

With more extensive trajectories and multimodalities, the memory assemblages generated through and with mobile devices and distributed via social networking sites might be imagined to have the potential to stick to other memory assemblages more readily, perhaps generating more powerful memory capital for women as a culturally and socially marginalised population. Certainly, in terms of older women's professional lives in 2015 a number of respondents expressed the usefulness of mnemonic capital of the global memory field in terms of giving valences to their work in public:

I once took a picture of some light and the architect who designed the building got in touch with me. It is really interesting the journeys of the picture—it now has a network that creates this further story. (Respondent female, F, 40s, married, two children, 8/10) 2015)

However, what is also evident is the stickiness of a net that enmeshes and ensnares: younger women in the 2015 study repeatedly said that they enjoyed losing their phone for the very reason that they could then start again:

I don't mind losing all my pictures, I like the feeling of starting anew, of losing the connections. So maybe I lose my phone on purpose. I have so many apps and so on many of which I don't use. I have a new iPad, for example, and it's great to start anew. I don't want to be reminded of the past. (Respondent U. Female Aged 22. 2015)

Mobile memories enable women to stick together memories from the domestic and personal space with those in the public space. This is instantiated through the software used on the mobile phones themselves. On the phones of users in 2006 the menu included a 'gallery' or 'galleries' in which the mobile phone user could store an archive of images and videos. On phones in 2014 the software took a retro direction, with the iPhone in particular rhetorically emphasizing the individual to the archive rather connoting the collective or public: the repeated use of 'i' in relation to the iPhone interface and software stresses the individualised nature of the data assets ostensibly kept on the phone. The metaphor of the 'mobile family gallery' I refer to (see Reading 2008) became instead 'i-memory' with music kept in 'iPods' and reading material in 'iBooks' and 'photos' kept in 'albums'. At the same time, this was accompanied by a user interface that is hyperconnective or sticky with data and images always offering the possibility to be sent or uploaded to social networking sites.

As Friedman says in *Making Sense of Software* (1993), the metaphors chosen for our digital devices have important meanings and frame how we use and think about those devices. Thus, in the earlier study the word 'gallery' used in relation to mobile images and video archives resituated the memory assemblages of family and friends into the public sphere, connoting with it those cultural and social associations of the public gallery that include status, display, accessibility, and creative industry. The iPhone, however, much beloved of many of the 2014 respondents with its retro use of the metaphor of the carbon and vinyl based album, rhetorically recentres in the mnemonic imaginary the personal, the domestic, the everyday, the family, the hitherto mundane.

Thus, it seems as if in 2014 greater value is being given to providing valency for that which was previously marginal or hidden. It provides the capacity to record elements of the everyday and to mobilise them

within the public sphere, to bear witness to, to record and document those aspects of labour which have hitherto been marginalised and devalued.

At the same time, though, women were self-conscious about the negative valencies of sharing the family and everyday:

I upload photos for work to tell the story of that event, via Twitter, but very, very rarely put photos of my children on Facebook, because I hate Facebook deep down inside, because it's all so trivial and all the people I am connected to are not my current friends. But, occasionally, when something momentous happens—my son was ten last week and that felt momentous so we posted that and that was nice. (Respondent female, F, 40s, married, two children, 8/10)

As with the digital witnessing of pregnancy examined in the previous chapter, the global memory field is enabling privileged women in the UK to develop more complex gendered identities through the mobilisation of memories betwixt and between the public and private, at the same time as commodifying these memories within an evidently commercial capitalist environment.

Finally, the digital born women in 2015 who were international students studying in the UK were highly directed in terms of mobilising memories that recorded the multiple identities afforded by their temporary migration. They captured and shared memory assemblages and would deliberately stick in different places and locales by utilising different social media platforms to appeal to different regions:

Now I'm taking lots of photos because I have to report back to my friends in China: it's my number one function to take photos to share with people back home, so, that they can see what life is like here. ... I use We Chat; Facebook is just for my Western friends and I do it in English. But, normally, I use We Chat and the function called Moments for my friends in China. (Respondent female, Z, 23, 2015)

CONCLUSION

This chapter has examined two empirical qualitative studies involving small samples of women representing the highly developed digital economy available to them in the UK in 2006 and in 2015. Although respondents included both digital born and digital migrants, all of the women's interactions with mobile technologies combined with the internet and social networking or connective technologies are producing new mobilisations of

cultural memory. I argued that mobile phones, because they are wearable connective technologies, enable the creation and dissemination of memory assemblages of aspects of women's everyday lives that provide a new kind of record of women's domestic roles. However, what is also evident is that mobile phone use by women does 'not necessarily challenge patriarchal and social structures' (Garcia 2011: 60) but rather acts to enable women to better coordinate multiple roles, including mobilising data, reminders and memories as a parent and worker, within neoliberal capitalist culture.

Mobilising memories of domestic and personal life within the public sphere at the workplace helps women traverse the gendered contradictions of late capitalism in which women are required to perform in the public sphere, whilst ensuring they can maintain ongoing responsibilities and performances in the private sphere. In addition, providing a record of women's domestic and affective labour in the global memory field is, arguably and in a minor way, providing for new voices and images to be present in public spaces. The global memory field remembers the labour of love that mediated memory forgot.

This points to something more critical in terms of how to retheorise cultural memory in the light of digitisation and globalisation. The mobile phone, with its proximity to the body, is at the interstices between the public and private, it lies between the social and the individual, it mediates the communicative and cultural. The mobile phone enables greater porosity and exchange between the public and private, the material and the energetic, the organic and the inorganic. And yet, it is not an accident that women in these studies described the experience of being without their mobile phone as being both naked and *free*. The mobile phone enmeshes women in a network of reminders, lists and texts of what to buy, what to do and who to be. With(out) mobile and social media a woman in the Global Age may indeed be free.⁶

NOTES

1. My favorite image on my mobile phone is of my participation in the Shakespeare Festival back in China. The image is of our production of Othello. We did it with just three actors. See! This is me here. I am with Othello and Iago. It went really well and the judges loved our show and so the photo is of that moment. (Student from China, female, 25, London 2015)
2. The biggest technical difference between third generation technology and second generation technology was the use of packet switching, in contrast

to circuit switching for the transmission of data. In simple terms, packet switching is a way of grouping data regardless of its contents, form or structure: instead it is put together into blocks which are called packets. Packet switching is also one of the key networking technologies that underpin the internet. New mobile phone technologies such as GP ROS and i-mode use packet switching. Although the amount of information carried by each packet is different, depending on whether connectionless or connection-oriented packet switching is used, in both cases the communication is dependent on the packet having certain kinds of information embedded within each discrete element so that it can be reassembled. The packet sequence number enables messages to be reassembled in the correct order. (Wikipedia, packetswitching)

3. The philosopher Michel Serres in conversation with Bruno Latour discusses how in his view there is a need for a non-linear metaphor for time which is more like a *mappa mundi*, wrinkled and folded in on itself (Serres, 1995). I argue here that digital technologies and mobile technologies, rather than smoothing time out, make for more folds. For a longer discussion of time, see Reading (2013a).
4. Paperchase in 2015 was a 40 year-old chain of stationery stores selling design-led paper, pens, cards and notebooks with on-line shops as well as 130 stores in the UK, and over 30 sites across Ireland, Netherlands, Denmark, France, Germany and the Middle East.
5. This also has major implications for how women manage their digital assets after death. A report in 2015 by one of the leading UK funeral directors, Cooperative Funeral Care, stated that, ‘the average UK adult has accumulated personal digital capital such as music, films or books worth £265, with over 500 million online accounts and assets throughout the UK, this could result in a staggering £17 billion left in cyber space’. ‘Death in the Digital Age’ <http://www.co-operative.coop/corporate/press/press-releases/Funeralcare/death-in-the-digital-age/>
6. I would like to give special thanks for this chapter to Latifa Al Darwish, one of my MA students at King’s College London, 2015 who acted as my ‘memory intern’ assisting with the research for this chapter. Our conversations about young women’s lives in the UK and Qatar were important to my thinking, as well as her help with the interviews with her fellow students. I would also like to thank Dr Kate Macmillan, who worked for me as a research assistant conducting some of the interviews for the 2015 South London school study. A heart-felt thanks to all those involved in both studies.

Global Publics: Death

In 2014 as the Israeli Defence Forces moved from bombing Gaza to sending in ground troops, the Twitter feed of one Gazan teenage girl, Farah Baker, then aged 16, hit the headlines. In one particularly moving tweet subsequently picked up by the mainstream press, she wrote ‘This is in my area. I can’t stop crying. I might die tonight (29th July 2014 Farah Baker@Farah_Gazan)’. The tweet reminds us of a line from the diary of Anne Frank ‘That night I really thought I was going to die. I waited for the police and was ready for death, like a soldier in a battlefield’ (Frank 2009: 326). One commentator in his retweet of Farah Baker’s Twitter feed commented, ‘I often wonder will the diaries of the children of #Gaza, be read like the diary of #AnnaFrank (Charles Edward Frith@charlesfrith, 6th August 2014)’. This chapter takes as its vantage point the domain of public space, focusing in particular on the memory of death within news journalism.¹ It addresses the ways in which personal and public memory in the form of witnessing is being transformed through mobile and social media in news journalism’s narratives of the ‘War on Terror’ after 9/11² which, significantly, also coincides with the emergence of the Global Age.

While it has long been recognised that many kinds of institutions are involved in memory work, journalism has largely been missed out from such discussions. Work that has sought to examine the ways in which

journalism acts to produce, disrupt and change public memories of events is still in its infancy (Zelizer and Tenenboim-Weinblatt 2014: 1). At the same time, journalism in the first part of the 21st century has, arguably, undergone profound and radical changes with the development of user-generated content and digital production practices, as well as new kinds of digital devices that allow for even greater on-the-move news consumption. On-line journalism, especially, seems to suggest that there are new kinds of public spaces for witnessing events (Allen 2006), although global studies from some commentators suggest it is more contradictory and contingent than first appeared (Allen and Thorsen 2009). Internet news involves the journalist in new practices of digital assemblage of content and form. Content may be repurposed from journalistic archives, as well as being recombined with images captured by ordinary citizens using their mobile phones and distributing the material via the internet to be picked up by mainstream news organisations (Reading 2014).

Acts of terror such as the bombing of the London underground transport system by Islamic terrorists in 2005, the shooting and bombing of civilians on the streets of Mumbai (2008), the bombing of commuters on the Metro in Moscow (2010), the beheading of a British soldier in the UK in 2013, and the attacks on the Bataclan Concert Hall in Paris (2015), to cite but several, have all been witnessed and recorded with the use of social media and mobile phones. The public have also seen the mobile and social witnessing of state atrocities such as the shooting of Neda Agha Soltan during anti-government protests after elections in Iran in 2009 or the attacks by Muammar Gaddafi's military personnel on the civilian population in Libya in 2011. It has become commonplace for global audiences to be able to witness mediated mobile witnessing of natural catastrophes such as the Japanese 2011 earthquake and tsunami. Dying, death and dead bodies are captured through local and immediate mobile and social technologies by ordinary citizens who then share and mobilise digital testimony to news corporations broadcasting nationally and sometimes globally. As with the example of the Gazan teenage girl Farah Baker cited at the beginning of this chapter, the immediate public witnessing made possible through social media tweets and images is then further amplified by the mass media globally.

In a number of studies between 2007 and 2012 focusing on various moments of mobile witnessing (Reading 2009, 2011a, b) during the 'War on Terror' I argued that 'citizen journalism' is more accurately described as 'mobile witnessing', since the images are still circulated within and

through mainstream media organisations that set the agenda and have more memory capital to secure the past. However, although gender is evidently a significant factor in how journalism, digital cultures and memory interact in the articulation of the past, there is virtually no work that has been conducted in this respect. This includes a notable absence within my own work on mobile witnessing, in which gender has featured as a footnote rather than central element in my argument.

The purpose of this chapter is thus to challenge this lacuna in research. I examine if and in what kinds of ways the journalistic record as a form of cultural and mediated memory in the Global Age is changing through the use of mobile technologies and social networking sites in ways that figure—and reconfigure—gender. The chapter explores five key examples of mobile and social witnessing linked by the fact that they all involve key historic moments within the ‘War on Terror’ (WOT) or ‘Global War on Terrorism’ (GWOT) over ten years between 2005 and 2015. I address mobile and social witnessing in terms of analysing its gendered trajectories, material practices and discursive formations related to each example. I start with the image of ‘everyman’ from the London bombings in 2005; I then examine masculinity and witnessing in the ‘War on Terror’ in relation to the shooting of the Al Qaeda leader Osama bin Laden in 2010. I contrast this with the mobile and social witnessing of two Muslim women: firstly, the state shooting of Neda Agha Soltan in Iran in 2009 and the ways in which her image was distributed and digitally reassembled in globalised diasporic contexts. Finally, I examine some of the trajectories and assemblages of the social media Twitter records of Farah Baker Gazam that came to global public attention during the Israeli Defence Force’s attacks on Gaza in 2014.

The chapter begins with a feminist discussion of research that has addressed the areas of media witnessing, citizen journalism, memory and journalism, and mobile witnessing: I show how despite the wealth of research there are clear omissions concerning the analysis of gender and the ways in which mediated memories involve the gendering of memory and the memory of gender. The chapter then addresses, in particular, gender and mobile witnessing: I examine the case studies to suggest that despite the evident transformations arising within the Global Age, women in mainstream journalistic memory practices remain marginalised, symbolically annihilated and frequently shown as victims rather than active agents.

JOURNALISM AND MEDIA WITNESSING

Two constructs are relevant to understanding journalism and memory, according to Zelizer and Tenenboim-Weinblatt (2014). Heuristically, they argue that the dual concepts of ‘trajectories’ and ‘domains’ allow for the useful elucidation of the relationship between journalism and memory. These concepts have been useful throughout this book in building the analytical framework for the conceptualisation of ‘the global memory field’ and in this chapter the dual concepts of trajectories and domains are deployed to illuminate the relationships between mobile witnessing, gender and memory.

The concept of trajectories, as I showed in Chap. 3, involves examining the temporally moving body or assemblage through space. The concept of domains signal the particular focus on the spatialised aspects of memory as ‘fields of action, thought or influence as they have evolved into some kind of recognized form’ (Zelizer and Tenenboim-Weinblatt 2014: 3). To address both the temporal and spatial dimensions of memory in this way enables the mnemologist to understand the ‘establishment, legitimation and maintenance’ of memory (Zelizer and Tenenboim-Weinblatt 2014: 4). Zelizer and Tenenboim-Weinblatt’s study traces the trajectories of memory through which journalism is ‘figured in uneven ways’ and then focuses on a selection of domains ‘by which mnemonics work takes a particular shape within journalism’ (2014: 4). Building on their insights and approach, I trace some of the trajectories of memory through which gender has figured in uneven ways within the domain of mobile and social media witnessing and the ways in which mnemonic work then takes shape through a combination of material practices and discursive formations.

Witnessing has been a prominent area of research within memory studies since the publication of Shoshana Felman and Dori Laub’s seminal study *Testimony: Crises of Witnessing in Literature, Psychoanalysis, and History* (1992) which examined bearing witness in relation to traumatic pasts. Witnessing, according to John Durham Peters, involves three points in a communications triangle: ‘(1) the agent who bears witness, (2) the utterance or text itself, (3) the audience who witnesses’. He adds that ‘it is thus a strange but intelligible sentence to say: the witness (speech-act) of the witness (person) was witnessed (by an audience)’ (2009: 25). He suggests, however, that the verb—to witness—is doubly inflected. It is both a sensory experience and the ‘discursive act of stating one’s experience for the benefit of an audience that was not present at the event and yet must make some kind of judgement about it’ (2009: 25).

However, Ashuri and Pinchevski argue that what is missing from Peters' communication model are two elements. Firstly, Peters misses out the particular parameters of the event in question; secondly, his model conceives of this triumvirate as having fixed components of witnessing. Ashuri and Pinchevski maintain that if the parameters of the event in question are significant to understanding then rather than fixed points of communication these are better understood in terms of what they call 'zones of contention'. Every zone of contention then involves agency, voice and the capacity to engage the audience. They emphasise in their work that witnessing is thus a struggle which is contested and that it is a cultural social field in the way that Bourdieu understood social space. Witnesses or memory agents compete for the trust of audiences, using various forms of capital which might include the political, symbolic, technological as well as economic and social, and to which they have uneven access, as well as using what they term 'habitual schemers' in order to gain the attention of audiences (Ashuri and Pinchevski 2009: 136–7).

MOBILE AND SOCIAL WITNESSING

If media witnessing is that which is 'performed in, by, and through the media and which is then both the specific domain of journalism with particular trajectories of memory in terms of capturing and disseminating realities to a mass audience' (Frosh and Pinchevski 2009: 1) by extension, mobile witnessing is that which is performed specifically using mobile phones in combination with social media and social networking sites to disseminate realities to a networked audience. Building on the argument of Ashuri and Pinchevski (2009: 1), mobile witnessing within the *global memory field* involves the contestation of meaning and competition for the attention of audiences using memory capital that may be a particular form of technology, a particular discourse (such as victimhood) or the use of established schemas that may give more prominence within journalism to male voices and images of men. Mobile witnessing in terms of the latter should also then be understood as an extension of earlier journalistic forms involving continuities, not just disjunctures, that may well include a polysemic struggle but which, nevertheless, as we will see, is confounded by gendered schemas.

A number of studies have shown how earlier transformations in the media led to changes in the processes of witnessing. In the 20th century, mass media and television in particular, according to John Ellis, developed a particular form of mediated witnessing in which audiences, although

separated from the events in terms of space, could witness the events within the context of their living rooms: ‘witnessing became a domestic act... Television sealed the 20th century’s fate as a century of witness’ (Ellis 2000: 32). In *Seeing Things* (2000) Ellis argues that television, in particular, developed a new modality of mediated memory. Details that previously might have been lost are fixed mechanically with the capacity to be amplified and repeated. Television, he argues, creates a way of seeing in which we are inscribed into responsibility for events with which we have no direct contact (Ellis 2000). Frosh and Pinchevski (2009) argue that the media of photography, cinema, television and video (we could add radio) enable an indexical relationship to events, including what Derrida saw as the instant, the singularity, the uniqueness of the particular moment in space and time and the instance, that which is repeatable and indeed which can result in reiteration (Derrida 2000). With audiovisual media, in particular, both the instant and the instance are embedded together. They argue that consequently such mediated witnessing is a new form of inclusive witnessing since it includes both the central subject and extraneous detail (Frosh and Pinchevski 2009: 9).

So how then are mobile and social media reconfiguring memory and mediated witnessing? Building on the work of Peters (2009), Ellis (2000), and Frosh and Pinchevski (2009), I contend that the domain of mobile witnessing points to new kinds of trajectories and more inclusive possibilities for marginal voices to be included within mediated witnessing and mobile witnessing in particular. Voices of women which, hitherto, may have gone unrecorded, unmediated or which as testimony lack public authority or legitimacy, may then, perhaps, become more central to public memory.

I also ask how mobile and social witnessing changes moral agency in relation to gender and the uses of digital technologies to the acts of witnessing. For witnessing, unlike remembering, historically invokes a particular moral stance in which the voice of the witness is there as part of a demand for justice. The insight that there are moral imperatives offered by digital media is highlighted by Tamar Ashuri (2011): late modernity has seen the emergence of a new kind of mnemonic moral agent arising through the possibilities offered through information communication technologies. She contends that the digital age enables the construction of joint memories in and by particular organisations’ websites that seek to show wrongdoing to large audiences. She draws on the example of a group called Machsom Watch (Checkpoint Watch) a women’s organisation which calls for the end of Israeli occupation and which monitors

and witnesses the humiliations of Palestinians trying to go through Israeli checkpoints. She argues that the website itself operates as a witness stand, with observers monitoring the behaviour directed at Palestinians and bearing witness to this in the form of reports posted online. She contends that digital media provide for more dynamic modalities of witnessing; unlike legacy media, digital memories posted on the Machsom Watch website are non-linear and interactive, allowing for users to post their own responses (Ashuri 2011: 104–16).

CITIZEN JOURNALISM AND GENDER

Within the field of media and communication studies the impact of mobile and social technologies on journalism has been framed not in terms of ‘mobile witnessing’ but rather in terms of ‘citizen journalism’. Citizen journalism is generally agreed to be the product of individuals who are not trained journalists recording and disseminating information about news events. This is facilitated through digital technologies and is understood to involve predominantly on-line news stories articulated through vblogs, podcasts, video streaming and other web innovations. Citizen journalism in this sense is a broader set of activities than mobile witnessing, but, nevertheless, incorporates elements of it. Stuart Allen and Einar Thorsen’s collection *Citizen Journalism: Global Perspectives* (2009) illustrates the significance of citizen journalism to news reporting from a wide range of countries including Kenya, South Korea, Brazil, the US and India. Allen and Thorsen (2009) in their introduction argue that despite the term’s ambiguities citizen journalism captures the sense of the ‘ordinary person’s capacity to bear witness’ particularly in relation to crisis events. Showalter (2009: 75–84) has shown how women in India subjected to male violence in the home have developed voices through blogs linked to pressure groups which sparked broader national stories within the media. Such work builds on long-established research in media and communications that has shown that gender remains a key factor, with news sources predominantly being male (Ross 2007).

Studies of citizen journalism thus highlight the place of new voices within these domains, particularly those with a rural focus (Figueiredo et al. 2009). A study of The Gems of the Earth Rural Community Telecenter Network found, for example, that a project to train and empower citizen reporters in rural Brazil resulted in women becoming ‘prolific content producers’ with video content that portrayed ‘a diverse set of actors in terms of gender and ethnicity’ (2009: 83). They suggested that Web 2.0

technologies in broadening the production base change media content. A study of ICTs in relation to citizen journalism and democracy in Africa included an analysis of WOUGNET, a project involving blogging by rural women in Uganda. The study supported the use by women of mobile and social media technologies to share opinions and debate various topics, as well as receiving agricultural information. Many of the women were illiterate and therefore could not access such information via print media. According to one information officer, Maureen Agena from WOUGNET:

the cameras and audio equipment are instrumental in areas where women may not be able to write; they are able to take a picture that can explain the situation. The impact of this project, especially in Uganda, is so big. (Agena cited in Banda 2009: 47)

Similarly, Bentley cites the use of blogging by women to articulate and share experiences relating to sexual and economic inequalities (Bentley 2008: 22–6). Rheingold argues that mobile phones and mobile witnessing offer new forms of communication for women, the disabled, the elderly and the illiterate which are in turn enabling women to gain financial independence in new ways. Mobile phones, he argues, offer ‘the power of the many’ (2002).

However, as Stillman (2007) points out, the ways in which gender is articulated is also intersected by other inequalities, particularly race. Stillman’s study of online journalism and blogging relating to female abductions and disappeared women explores new uses by activists to offer a voice to marginalised women. She argues that within mainstream media coverage in the UK, middle-class white girls are constructed as national commodities and given extensive media coverage. In contrast, brown and poor girls and women are constructed as disposable, in that the multiple disappearances of women in countries such as Mexico are ignored by the mainstream media. In contrast, activist groups have been able to use mobile witnessing as a means to raise the profile of ‘femicide’ the killing and disappearance of women because they are women (Stillman 2007: 496).

There is, though, a major oversight within these earlier studies in terms of how mobile witnessing is changing or securing gendered mnemonic practices. Instead of merely analysing the *representation* of women *within* particular static and discrete domains in addition, it is important to trace some of the granular trajectories and settlements of memory across gendered practices. From this, it is then possible to ascertain how gender within the domain of mobile witnessing is informing in complex and contradictory ways the mnemonic work that takes shape.

MOBILE WITNESSING AND GENDER

In my previous studies on mobile witnessing (Reading 2009, 2011a, b, c, 2014) I argued that new media ecologies and memories which are virally globalised require a paradigm shift in terms of understanding mediated memory. I argue for a grounded form of knowledge that traces how the memory as an assemblage travels, cuts across, bridges, bonds, intersects with and reconfigures the memory binaries associated with legacy media such as the individual and the media organisation, the amateur and the professional, the local and the global (Reading 2009, 2011a, b, c, 2014). What was missing, however, within my own work was recognition of the significance of gender.

Yet, feminist theory has a long actiology of work on witnessing in relation to male violence and violence against women. As I showed in Chap. 2, 19th-century feminists sought to record and document the stories of sex workers using the mass medium of the day, print. Second Wave feminists in the 1970s and 1980s gave great credence to the importance of women giving testimony to the abuse that they had suffered (Brownmiller 1975).³ But feminists have also argued that new media technologies, whether new forms of print in the 19th century, video cameras in the 1980s or the internet in the 1990s, do not necessarily act to include women and provide a more equal voice. Anne Cubilie in *Women Witnessing Terror* (2005) argues that there is a gendered split between public and private in terms of the role of individuals in the witnessing of violence, particularly state violence. Cubilie argues that this is because women often do not enjoy the same protection by the state or law in their daily lives since male violence is directed at women in terms of gender and sex (2005: 165).

Although Cubilie's study is written prior to the advent of mobile and social technologies, she studies the 'new technology' of the 1980s in the form of the handheld domestic video camera, examining how it was being used to document and bring into the public arena acts which were hitherto privatised. She suggests that the act of filming with a video camera 'occupies the dual position' of acting as both a form of resistance and as a form of mediated witness. She examines the case of the beating and assault by police in Los Angeles of a black construction worker, Rodney King. A video of the assault, she argues, ensured that there was a record of perpetrator violence which meant that the police could be brought to trial, 'At the same time, however, through the broadcast of the violent spectacle of abuse throughout the country, the video increases terror both of the state and of the racist stereotype of the violent, excessive black man' (Cubilie 2005: 165).

Myers (2011) points out that the impact of the ‘new technology’ of the video camera in the 1980s in the witnessing of the beating of Rodney King highlights how much has since changed with mobile and social technologies. The witness/bystander to the Rodney King beating, George Holliday, had to lift up a relatively bulky video camera up to his window to capture the event. He then had to take out and physically transport in person the nine-minute video tape to the local TV station and request that the station broadcast it. In contrast, within the Global Age, mobile phones can be used to capture events surreptitiously, and be seamlessly uploaded and distributed via Wifi or 3- or 4-G. Nevertheless, Cubille’s observation regarding the dual position of media technologies remains pertinent: they allow for a record to be made of violence and atrocity and yet amplify our position as spectators. The difference, as I shall show, is that in terms of gender this dual position is intensified and amplified as the line between public and private becomes ever more blurred in the Global Age.

Carrie Hamilton’s (2009) study of feminist anti-prostitution and anti-pornography blogs provides a more recent caveat to the idea that new media technologies simply through the act of witnessing provide women and other marginalised groups with new forms of gender inclusive witnessing. Although Hamilton’s work does not look specifically at mobile witnessing, instead focusing on first-person testimonies predominantly in the confessional mode articulated through blogs, her work provides some key insights in terms of stressing the continuities of gendered material practices despite transformations of media technologies. Hamilton analyses blogs in which the blogger positions herself as a witness to the everyday experiences of sex workers. She found that although on the surface such blogs do provide a critique of the particular exploitations of the sex industry, they tend to collapse the industry’s complexities and give priority to voices where women themselves position their identities as victims of the sex industries. Thus, she concludes, that while the blogosphere does provide a new form of witnessing in terms of its material practices for women and new forms of community, it articulates an established view of women as victims (Hamilton 2009).

In the next part of this chapter, I analyse how in practice mobile and social technologies provide for both continuities and change in how memory and gender are configured in the Global Age. Building on the theoretical and empirical insights of previous studies on gender, witnessing and mobile witnessing or citizen journalism, I trace some of the trajectories of memory to show how gender figures in uneven, seemingly polyvocal and complex ways.

THE WHITE EVERYMAN OF THE 2005 LONDON BOMBINGS

In July 2005, in what have since been named the ‘7/7 London bombings’, Islamic terrorists detonated three bombs on the London Underground as well as a bomb on a London bus. The terrorists murdered a total of 52 people and injured another 700. The attack was the worst terrorist violence on the British mainland since the Lockerbie plane bombing of 1988 and was also the first event of its kind in the UK to be publicly witnessed through the news media using mobile phone technologies. While earlier terrorist attacks had been witnessed using video cameras, as with the 9/11 attacks on the World Trade Center in 2001, it was not until the mid-noughties that mobile phones had cameras of sufficiently high quality in combination with internet access, and 3- or 4-G connectivities to act as domains for media witnessing through social networking platforms.

Within 20 minutes of the London 2005 Bombings, mobile phone videos and still images by survivors and witnesses of the atrocities were being broadcast by news organisations (Day 2005). This created ‘a globital public’ in which a number of images became iconic, including one of a male survivor, Adam Stacey. While commuting to work on the Northern line, Stacey narrowly escaped a bomb blast. The mobile phone image, a grainy black and green picture of a man holding something to his mouth, was rapidly circulated worldwide and became emblematic of the response by Londoners to the bombings.

The image was tagged as ‘People trapped in the tube’ although the main image was of Adam Stacey, a 24-year-old male civil servant who had been travelling to work on the Underground or ‘Tube’ when the terrorist attacks on London’s began. He asked a friend, Elliot, whom he was travelling with, to take a photograph of him using his camera phone as he emerged from a smoke filled tunnel. His original intention was to be able to verify to his employers that he was late for work because there had been a breakdown on the tube and he wanted to prove that his lack of punctuality had a legitimate reason. He didn’t know, at that point in time, that there had been attacks across London. When he got to the surface, Adam shared the image with a friend, Alfie Dennen, using mobile network coverage. Alfie Dennen then uploaded the image to his own mobile blog and it was published as ‘London Underground bombing, trapped’ (Dennen 2005).

I originally studied and traced this image because of its extensity and reach. It was one of two images that gained iconic public status very rapidly after the bombings: the other iconic image was one of a London bus which had been destroyed by another bomb blast. The image was

very quickly taken up by mainstream news organisations both in the UK and internationally and it made the front pages of newspapers worldwide. Within a few hours of the attacks the image had been viewed more than 21,000 times (Dennen 2005). Two years later the image had been viewed over 150,000 times (Dennen 2005). The image was awarded the prestigious Best Photo of the Year award from *Time* magazine in 2005. The image was posted with a Creative Commons license which meant that there could be no commercial gain made from it, but that meant that mainstream news organisations could easily reuse the image without having to pay copyright fees. The image also led Alfie Dennen to create the website ‘We Are Not Afraid.’

Responses to the image on Alfie Dennen’s website became part of the global assemblage and include expressions of sympathy towards those injured, as well as revenge and hatred towards the attackers. The witness image rapidly provoked other memories by posters of earlier bomb attacks such as this one:

[rathgild](#) says:

alfie. I KNOW what it’s like to be in the middle of this situation. I lived in Manchester. My flat was on the roof of the Arndale Centre. I walked past the van that blew up about 3/4 hour before the city centre was evacuated. It was a terrifying experience that I would never want to live through it again. Not to mention that I was temporarily homeless because we didn’t know if the building was safe, and I couldn’t get into work because our office was on the edge of the blast zone.

7 Jul 2005, 11:58. Dennen 2005.

The image is this part of a wider memory assemblage with sticky points to textual comments from consumer–producers of media content, what Adam Toffler coined as the ‘prosumer’ (1980). These have a predominantly gender-neutral framework, with the majority of postings from those with gender-neutral names that include Euphro, 549air, Bronself and BjjPerth. The picture itself, though, of Adam (First Man) was curated by another man, Alfie. Posters commenting on the image on Alfie’s MoBlog until the code time of 14.38 perform on-line using male avatars: Bob the Dino, Daz, Pete S, Joe, Phil Hibbs, Tim McCormack. But after a few hours, female performers emerge—Ali, Sarah Core, Trii Girl, Sylvia Aitkin, Adrienne S. The names that are preserved in posts assembled with the image on the moblog are male, female and gender-neutral. In this respect, then, the mobile witness image, although of and produced by men, has multigendered valencies within the moblog assemblage itself.

In terms of its material practices it was thus curated predominantly by men but then mobilised and securitised by male-dominated mainstream news organisations as well as more gender-neutral blogs and commentaries. As a discursive formation, Adam Stacey's mobile witnessing articulates a version of masculine witnessing in the public global memory field that is the active, male survivor with a voice. Adam Stacey continued to have a witness voice through interviews, mobilising the assemblage himself through posting further comments on the blog; he chose to have the image taken of him and chose to share it via a Creative Commons licence as 'free' memory capital.

However, the use and mobilisation of iconic images of male survivors from the bombings is not always such that they extend established modalities of masculinity. This is more evident through contrasting it with another image from the 2005 London bombings of Professor John Tulloch, Media Professor at Brunel University, and a survivor of the Edgware Road bomb that was detonated just three feet away from him. An image of John Tulloch was also circulated throughout the mass media. The photograph shows a burnt, blackened and bandaged man being supported by health workers. The image was later used by the UK's *The Sun* newspaper with a headline that stated 'Terror Laws: tell Tony he's right'. The assemblage suggested that John Tulloch supported Tony Blair's 'Terror Bill' which had been defeated in November of that year. Tulloch himself, subsequently, argued that in using his image in that way, *The Sun* newspaper had stolen his voice and replaced it with that of Tony Blair, the nation's most powerful politician (Anon 2010). Research on images of men in warfare has shown that a visible attack involving wounding of the masculine body is often framed as an attack on the nation. What is also then significant, in part, as a reaction against this is that in subsequent years after the bomb attacks what became important was the *voicing* of the memories of the attacks through the publication of a number of books both personal (Tulloch 2006) and academic (Tulloch and Blood, 2012). It was also evident that this voicing was an important element for other survivors with for example their articulations in the coroner's court of their experiences, which were immediately published online (Reading 2011a).

What is also significant is that the photograph of John Tulloch, unlike that of Adam Stacey, was not taken using a mobile device by a non-journalist but was taken by an Evening Standard photojournalist. While a professionally captured and commercially mobilised attack on the male body is an attack on the nation in the form of the rule of law, an attack

on the male body captured by a mobile device is an act of rebellion and resistance in which the male voice is retained. This suggests that within the global memory field, mobile witnessing involving the horizontal rather than vertical power axis—as with Adam Stacey’s image—has the potential to mobilise different modalities of gender including different modalities of masculinity.

UNVEILING MUSLIM MEMORY: NEDA AGHA SOLTAN

The regimes of [Iran](#), [Iraq](#), and [North Korea](#) in 2002 were identified by then President of the US George W. Bush as part of what he termed the ‘Axis of Evil’ which he defined as enemies of the United States in the ‘[War on Terror](#)’. Within this broader mediation of the events was a moment of mobile witnessing that rallied Iranians both in Iran and around the world. Neda Agha Soltan was a 26-year-old philosophy student shot dead during the 2009 Iranian election protests. Her dying moments and subsequent death were captured on a mobile phone by a friend who emailed the video to another friend in the Netherlands. Within minutes the mobile phone video was uploaded to several websites and within a few hours the images had been mobilised around the world through the Iranian diaspora as part of their protest against the regime, which, as part of the ‘War on Terror’, had been designated by the US as a member of the ‘Axis of Evil’. In cities around the world Neda Agha Soltan’s image was printed out, pasted on to placards and paraded on the streets and squares in protest against the violence of the Iranian government regime. The video and subsequent embodied and materialised witness protests generated further multiple memory assemblages that included broadcasts on television stations in Britain, the US and Australia. The image of Neda Agha Soltan’s face covered in blood was recoloured and reworked on the Internet; the image was reassembled on mugs and T-shirts; and the mobile phone video prompted the creation of Facebook groups, two Wiki pages, memorial artworks and several songs commemorating her life and death (Reading 2011c: 241). Her death has been suggested by some as one of the most widely witnessed in human history (Mahr 2009).

The example of Neda Agha Soltan points to something more complicated and significant in terms of how social and mobile media implicate gendered mnemonic practices and processes. Aleida Assman and Corinna Assman in their essay on Neda as a ‘global icon’ argue that with such mobile images, ‘once such a digital message has escaped, it can neither

be called back nor be ever fully extinguished. The dispersal acquires a dynamics of its own which is regulated by the magnetic mechanisms of attention' (2011: 2–7). They argue that the image 'quickly became known all over the world' and that the 'millions of private camera eyes' can now be used worldwide to enforce 'a democratization of evidence' (2011: 232). While the point here is valid—that memory and the global have to be studied together, and that memory studies needs to move beyond analyses bounded by the nation state—what is missing from the Assman's analysis (2011) and other analyses of this instance of mobile witnessing (Mortensen, 2011) is a critical sense that the material practices involving the rapid and extensive mobilisation of the witness video are at the same time secured through conventional gendered discursive formations.

The mobilisations of the mobile phone videos and images of Neda Agha Soltan by diasporic Iranians discursively involves the creation of a new kind of affective and 'intimate public sphere' (Naghbi 2011), which facilitates collective compassion and activism. Hence the extensity, the transmediality and the valency of the assemblage in terms of its stickiness to other memories (diasporic publics for example) exemplifies the ways in which memory assemblages cross established boundaries. This transection between the public and private, the intimate and non-intimate, the rational and the affective has, as we shall see, important implications for gender.

The circulation and remediation of the image of Neda Agha Soltan involved the combination of 'old media' professional journalists combining with 'new media' and the amateur citizen journalist to produce the iconic image, with rapid communicative transitions from the private sphere of the mobile and social space to the public globalisation of the image (Tulloch and Blood 2012). The journalist and news media's capacity to cross over into the semi-public spaces of social network platforms to access the data and digital memories of social media accounts led to the erroneous mix up of Neda Agha Soltan's image with that of another woman with a similar name, Neda Soltani, whose Facebook image was used alongside Neda Agha Soltan. The image of the wrong woman, Neda Soltani, was used on websites and news broadcasts around the world (Soltani 2012) and became a fixed image used in protests, despite Neda Soltani publicly pointing out the mix-up (Soltani 2012). The mix-up then resulted in threats against the 'wrong woman', Neda Soltani, by Iranian security agents, forcing her to flee Iran, take on refugee status and apply for asylum in Germany to ensure her safety (Soltani 2012). Thus, where John Tulloch had the power of his voice stolen, the mobile witnessing of

the shooting dead of Neda Agha Soltan along with erroneous data from social media was mobilised by the Western news media who continued to circulate the wrong image, which effectively ruined Neda Soltani's life (Soltani 2012).

Meanwhile, the mobile phone witnessing of the shooting of Neda Agha Soltan also involved recurrent assemblages in terms of both discursive formations and material practices that were not limited by one medium and which told different elements of the core story or memory. The example of Neda Agha Soltan characterises how within the global memory field memories can rapidly move between the instant and instances of witnessing and that the gendered memory assemblage through diasporic networks is extensively subject to mobilisation and (de)securitisation. Further, the data originally captured for the purposes of personal witnessing took on very different modalities in the form of the modalities of protest, the modalities of news, the modalities of commemoration. The memory assemblage of Neda Agha Soltan was bonded with multiple discursive formations and material practices of other memory assemblages within 'the war on terror' and the grand narrative related to Islam that is part of that story that began with the World Trade Center attacks on 11 September 2001.

In the case of Neda Agha Soltan the memory assemblage for some time remained open to change and flow. The case illustrates how within the global memory field memories can be mobilised readily across both the horizontal and vertical axes, which is important for memory assemblages in finding new ways around particular blockages by powerful memory agents, in this case the Iranian state. Although the Iranian authorities banned a memorial service for Neda Agha Soltan, memorials were created online. My own analysis across three different search engines Google, Baidu and Ayna, revealed that after Wikipedia and Facebook, mainstream media organisations dominated the other top hits. But, in each case the material practices underlying these memory assemblages involved citizen memory agents in the production of material (Reading 2011: 250).

Mapping on to the communicative memory binaries of organic-machine, analogue-digital, public-private, amateur-professional indicates how the memory assemblage is partially disruptive of established gendered binaries. Feminist poststructuralist accounts of the public sphere and public spaces contend that gender in Western post-Enlightenment is organised in terms of a set of binaries and dichotomies that reinforce gender power relations: what historically has been privileged in the public realm is that which is equated with masculinity, culture, objectivity, reason,

professionalism, and citizenship (of the nation state). In contrast the private realm is associated with femininity, domesticity and amateurism, nature, emotion, and the mother–wife (of the family) (Van Zoonen 1994: 3; see also Elstain 1981; Felski 1989; Fraser 1989, 1990, 1992; Landes 1992; McLaughlin 1993; Pateman 1988, Reading 1996).

When memory assemblages of women are mobilised within public discourse they are thus conventionally securitised around women as lacking in power and agency in order that they not represent a threat to the patriarchal symbolic order: memory assemblages tend to coalesce around women as a victim, as innocent, as silent, and often as dead. In her study of gender and the holocaust, Janet Jacobs has argued that particular national narratives in cultural memory become reified: thus dominant tropes in Holocaust memory are the suffering mother or the sexual possession of a perpetrator. She argues that we must be wary of creating narratives that promote voyeurism and exploit the memory of women victims (Jacobs 2008). If, in contrast, memories of men within public national memory are conventionally given an active voice and assembled around the hero, to what extent does mobile and globalised witnessing disrupt these dichotomies (Skalli 2006), changing gendered witnessing and gendered memories of women's, and indeed men's, lives?

I would argue that the mobile witnessing of the shooting of Neda Agha Soltan as a mediated assemblage is actually the *resecuritisation* of a long-established cultural memory of women as victims in the public sphere: the memory assemblages of Neda Agha Soltan stress her victim status, and show her mute face. Much was made of the fact that she was an amateur protestor who only accidentally became involved in the protests on that day. Much was also then made of the fact that she was under the patriarchal care of her male music teacher. Her image is one of a body and blood: it is thus the mobilisation of the dead body of feminine vulnerability. She is not a soldier on the front line, with a gun or a tank, but an innocent woman going from one domestic place to another who just happened for a moment to be on the public street. Much was also made of Neda's name which means 'voice' and yet she is silent. In addition of course she is evidently Muslim and part of the ease I would argue with which her image was mobilised is that her female body also represents with her unveiling in death, the unveiling of Islam within the public global. Her still bloodied face shows her face from which her hijab has slipped. She is just a woman. Other images that were circulated of her show her without a hijab and in Western dress.

Contrast the global mobilisation of Neda Agha Soltan's image with that of the mobilisation of the image of Adam Stacey. Both were circulated within the broader discursive context of the war on terror and Islamophobia: he is a white, male survivor, alive, an active participant and as an English-Londoner, a worker-commuter, a hero of the common man. Neda Agha Soltani is the dead, passive, Iranian, woman and the unveiled Muslim within the War on Terror.

Thus there is a contradiction here that we need to be acutely aware of in relation to the potential power of mobile technologies to mobilise gendered memories. While the material practices involved in mobilising the digital media assemblage certainly cross and disrupt established boundaries between the public and private, and certainly enable transmedial mobilisations that are rapid and extensive, these are configured through discursive formations that are securitised around conventional gendered memory assemblages. Instead of the voyeurism of a small community or even a nation, these memory assemblages are then subject to the voyeurism of the world.

MASCULINITY, THE MUSLIM TERRORIST AND GENDER WARS

An analytical counter-point to the gendered voyeurism of these highly mobilised public memories in the global memory field is a case when there is the non-mobilisation of witness images. This was the situation when US forces shot dead the male Islamic terrorist Osama Bin Laden. Bin Laden, the leader of Al Qaeda, an Islamic terrorist organisation, was killed in his compound in Abbotabad in Pakistan as part of the War on Terror by the US within a planned military operation by US SEALs in on 1 May 2011. The US state securitised the 'non-memory' of the event through the material practice of preventing for reasons of national security the public circulation of images taken of the shooting (Reading 2014). Journalists and the public were then in the position of assembling a record using other sources.

The news was initially broken at 7.24 pm EST on 1 May 2011 via the microblogging platform, Twitter, with a tweet from a former US Naval intelligence officer, Keith Urbhan who tweeted, 'So I am told by a reputable person that they have killed Osama Bin Laden: hot damn' (Filloux, 2011). By 10.40 the *New York Times* had announced on its website 'Bin Laden Dead, US Official Says' and within 15 minutes three US broadcasting

services had breaking news on the death (Filloux 2011). Within 24 hours, journalists reported that Osama Bin Laden had been buried at sea. The public was not allowed to see any image of the shooting, any images of his dead body or the funeral. Only a select number of top US security personnel were permitted to witness the limited number of images available that documented the event. Although seven additional images were uncovered they, too, have not been shown to the public, the US Justice Department ruling that it would be against national interest to do so. During a subsequent interview President Barack Obama said it was important that there were no images of Osama Bin Laden's body in the public domain that could then incite further violence (Adams and Durante 2013).

The erasure of memory continued in February 2012 when Pakistani security forces demolished the compound in which the raid took place to prevent it becoming a commemorative shrine (Adams and Durante 2013). In February 2013 the Pakistan government announced plans to spend £19 million on Abbotabad—the military town where Osama Bin Laden was shot dead—to redevelop it as an 'amusement city' that will include a heritage park, jogging tracks, a food street, mini-golf, a zoo and ski-slope. This has been interpreted as another act to rebrand what could potentially become a memorial space:

While the three-storey building in which bin Laden was killed has since been knocked down to prevent such pilgrimages, his memory lives on and, behind the scenes, officials are desperate to re-brand the town as the tourist hotspot it once was. (Blake 2013)

What then took place in the immediate aftermath of the shooting dead of Osama Bin Laden and the absence of any mediated witness images was effectively a gendered memory war within the global memory field. This gendered memory war, however, as with the other case study examples, involved the mobilisation of memories within a broader context of the 'War on Terror'.

How then are gendered memories conventionally mobilised within the context of war narratives in terms of the gendering of memory and memory of masculinities? Masculinity in relation to and through memory, while it is not expressed in monolithic ways, nonetheless is configured through and by particular dominant assemblages. Memories of the robustness and wellness of a male body are usually assembled to represent the healthy nation, while sick masculinities suggest counter memory (Allbritton 2012:

58–70). Commemorations of war are designed to suppress disruptive memories of unwanted kinds of masculinities (Koureas 2007). The rights and practices of commemorations of conflicts contribute to the ‘normative’ ideals of masculinity with memories of what Novikova terms ‘combat masculinity’ standing in for memories of the nation, providing a source of inspiration. The body of the male soldier is then the body of the nation (Novikova 2011: 589–97).

At the same time, denying the memory of the deaths of those under colonial rule is a conventional act of postcolonial violence (Mai 2006) and denying the memory of the death of an enemy is similarly a form of seeking to prevent what Judith Butler has termed the grievability, the subjectivity of the enemy or ‘worth’ of grieving that may be accorded or not to the loss of enemy life (Butler 2009: 38). The result is to create in the place of the enemy an absence, an incomprehensibility in relation to the threat (Pötzch 2011).

To establish the non-memory of the enemy male is a way of curtailing what King and Stone have termed ‘lineal masculinity’ which is a critical element of gendered memory within patrilineal cultures:

Lineal masculinity flows through time, through males to successive generations. Only sons pass it on. Masculinity within patriliney is linealized in ways that femininity is not because it is connected to ontology: only men are considered generative persons who can create other persons. (King and Stone 2010: 323)

In preventing the mobilisation of the mediated witnessing of the shooting dead of the male terrorist Osama Bin Laden, within the global memory field, the US state thus, arguably, sought to prevent the establishment of lineal masculinity and the social inheritance or reproduction of extreme Islamist ideas of Al Qaeda and Osama bin Laden as a martyr for an Islamic state.

At the same time, in place of witness images showing the dying man or his dead body, the US state released the image of what became known as *The Situation Room*⁴ to professional news journalists. This alternative ‘witness’ image showed the operations room with US president Barack Obama along with security services and military personnel watching the operation through what audiences were told was live-action video. The image led to a number of discursive responses by journalists which suggested that the image was transforming the ways in which the US president was going to

be remembered. This was because this now official image showed a black man, Obama, along with two white women in key positions of power. One commentator argued that it was a watershed in terms of the nation's ideas about race and women (Blake 2011). The image had transformed the usual highly masculinised image of the president as Protector-in-Chief who conventionally would be photographed in military uniform into one of softened machismo in which the body of the male president was decentred (Blake 2011).

Furthermore, the president was not shown looking confident and heroic, but rather anxious and worried, with his feelings amplified by the inclusion of Hillary Clinton holding a hand over her mouth in shock and awe at what was taking place through the live streamed video before them. However, what is also evident is that at the centre of the picture is Brigadier General Marshall B. Webb, the only person in military uniform, who is not looking at the screen but at the laptop in front of him. The latter could be interpreted as conveying a sense of control: he has no need to bear witness as he knows what is planned to take place. Thus the witness image is assembled around a well-established aggregate of US masculinity: the assured male, in uniform, highly visible, controlling the fate of the world's most powerful nation state.

At the same time, what also then happened was that the image was reassembled in multiple ways in a global discursive struggle to re-embodiment the absent male corpse of the enemy, Osama bin Laden. The memory assemblage of the original professional photograph of *The Situation Room* was mobilised and remobilised in ways that desecuritized this seemingly secure aggregate of US masculinity set to replace the absent body of Osama bin Laden. Within the press itself, journalists at the New York Hasidic newspaper *Der Zeitung* digitally deleted the only two women from the picture and showed this reassembled image on their front page. The editor claimed that this had been done because of 'laws of modesty which meant that the newspaper was not permitted to publish any pictures of women' (Bell 2011). Subsequently this modified image then led to many subsequent re-assemblages: one of which included the version by the website *Free Williamsburg* which then deleted all the men from *The Situation Room* image, leaving only the two women in the picture (Memott 2011). Another regendering included one showing all of the participants including the President wearing the UK's Princess Beatrice's hat from the Royal Wedding that was the major event taking place in the UK that week (Tit for Tat 2011). In another version participants are digitally reworked into

various superheroes. The non-memory of the mobile and social witnessing of Osama Bin Laden's body, I would suggest, led to the void being filled with a gendered memory war: in this case social and digital media is used to rework the state photograph of the Situation Room; the assemblages extend beyond and across public and private dichotomies and traverse established gendered binaries and yet simultaneously rearticulate established material practices and discursive patriarchal formations.

FROM THE DIARY TO THE FEMININE TWITTER

I conclude this chapter on gender, memory and journalism by returning to the question of the gendering of the Twitter feed from the 16-year-old Palestinian girl Farah Baker (@farah_gazan) mentioned in the opening of this chapter. While the verb 'to twitter' once only meant the tremulous and repeated call of birds, it is now a verb that refers to the particular form of making digital conversations via the Twitter microblogging platform established in 2006 that allows registered users to send short messages, limited to 140 characters. Unregistered users can access Twitter feeds, but cannot post tweets. Posts can include users' own tweets, as well as retweets from other users' images and videos. In journalism studies, Twitter is studied in terms of its use by mainstream media and in terms of its impact in breaking news stories (Engesser and Humprecht 2014; Fu and Lee 2014) as, indeed, I showed with the case of Osama Bin Laden.⁵ However, microblogging platforms remain the least studied form of digital memory in comparison to studies of social media platforms that include Flickr, Facebook and YouTube (Benzquen 2014; Liew et al. 2014; Van Dijck, 2014).

One of the exceptions to the lacuna of research on Twitter as memory is work by Watson and Chen: they studied the use of Twitter as a form of collective remembering in relation to the 50th Anniversary commemoration of the 1963 march on Washington for jobs and freedom. They conducted user content analysis to trace the US National Public radio's use of Twitter in the 1963 commemoration. They asked to what extent Twitter tested conventionalised news coverage that obscures power relations and the civil rights demands at the core of the protests. The study concludes that far from challenging established news discourse Twitter reinforced the power of memory capital: those with long established authority—mainstream news organisations for example—were the most dominant Twitter users in the @todayin1963 coverage. This then resulted in very

little challenge to the dominant memories of historic events (Watson and Chen 2015). As I shall show, this significant finding is also echoed in the case of the Twitter feeds related to the case of Farah Baker.

Farah Baker was/is a Twitter user based in Gaza who sent tweets live during bombing raids on her home and on people in Gaza by the Israeli Defence Force in July 2014. The tweets were picked up by a number of major news agencies around the world including *The Daily Telegraph* in the UK and *Russia Today*. The teenager tweeted her emotions and thoughts, as her home was bombed, describing the noise of the drones overhead and the force of the explosions that filled her ears, making her sister scream with terror. The Twitter feed on 29 July 2014 gained 70,000 followers online, until her posts were knocked out by the Israeli Defence Force bombing Gaza's only power plant, thus depriving Farah and her mobile phone of electricity (Sanghani 2014). The age of Farah, just 16 years old, her circumstances and her teenage feelings and thoughts reminded secondary media witnesses of the diary entries of the Jewish girl, Anne Frank, during the Second World War: Anne Frank was also a teenage witness, also writing under occupation, hiding in Amsterdam from the Nazis, using in 1942 a paper diary to record events. In her Twitter feed, Farah Baker made the connection between her work and the diary of Anne Frank.

Farah Baker's witnessing brings to the foreground evident differences and continuities that are being articulated within the gendered trajectories of the global memory field. There are evident continuities between the domains and trajectories of the live tweets of Farah Baker, a young Muslim woman, with the trajectories and domains of the discrete diary of a young Jewish woman who perished in Belsen concentration camp (Frank 1947/1995). Both Farah Baker and Anne Frank have entries in Wikipedia. Farah Baker's is just a few paragraphs, while Anne Frank's is several pages. But, while Farah Baker's memory page is bonded to Anne Frank, this is not a reciprocal link. A reader of Anne Frank may be totally unaware of the posts and story of our contemporary young Muslim witness in Gaza.

As is well known, Anne Frank's diary was written after her family went into hiding in rooms behind bookshelves in the apartment of a friend in Amsterdam. Anne Frank recorded her memories on a daily basis over two years, writing by hand with an ink pen on paper in a diary given to her for her birthday. She describes being in hiding for two years. The reader knows what Anne Frank is unable to record—that she was taken away by the Gestapo and was killed, dying probably of starvation and typhus, at Bergen Belsen Concentration Camp in 1945 along with all the members

of her family. The only survivor was her father, Otto Frank who, at the end of the Second World War, was then able to edit and publish his daughter's diary. The diary has since become a classic and has been republished many times and has been read around the world. The work also now has a digital presence which links it to the Anne Frank Museum in Amsterdam.

Farah Baker's Twitter feed is, at the time of writing this book, still active; her memory is living, the violent wound is open still, the world's attention turning to her as she posted her fear of dying while bombs rained down on her home from the Israeli Defence Force in what they termed 'Operation Protective Edge' in July and August 2014. Farah Baker's words are written with a mobile phone and restricted to the length of 140 characters. Her witnessing work includes an image of herself with each tweet, as well as some mobile phone video of bombing raids. Her words and images reach us through the global memory field, connected electronically and digitally through the data centres of the internet. As with the other examples in this chapter, her mobile witnessing did not remain in the private domain but rather was made present to global publics, redistributed vertically and horizontally during the crisis (though the crisis continues) via mainstream news sources.

Farah Baker was subsequently interviewed on the US TV channel, NBC, with the video showing an ordinary teenage girl in her apartment describing her fear of being bombarded and her dream of studying law to put an end to the war (Smith 2014). Coverage of her story and her tweets was published in news sources worldwide including *The Daily Telegraph*, *The Daily Mirror*, *Russia Today* and *Die Standard*. In one report in *Russia Today* her witnessing is included as an illustration of how the social networking platform is said to be changing the way in which the Israeli–Palestinian conflict is reported: the article suggests that the narrative of the war is being changed by alternative news sources coming out of Gaza, particularly the Twitter feed #gazaunderattack developed to counteract the IDF's Twitter feed #IsraelUnder Fire. The digital trending analytic Trendsmap.com showed comments in relation to Farah Baker's tweets in the UK, France, Spain, Argentina, Chile, North America, Japan and Australia.

Both diarists share an evident resistance to the gendered constraints they experience: Anne Frank writes on Wednesday, 5 April 1944, for example

I finally realized that I must do my schoolwork to keep from being ignorant, to get on in life, to become a journalist, because that's what I want! I know I can write..., but it remains to be seen whether I really have talent.

And if I don't have the talent to write books or newspaper articles, I can always write for myself. But I want to achieve more than that. I can't imag-

ine living like Mother, Mrs. van Daan and all the women who go about their work and are then forgotten. I need to have something besides a husband and children to devote myself to! (Frank 1995).

Farah Baker shows images of Palestinian women mourning the loss of loved ones, but also, as with her post on International Women's Day, throwing stones against a wire fence with the tweet, 'Well, here are THE STONG PALESTINIAN WOMEN #Palestine #WomensDay [Guess What @Farah_Gazan Mar 8th, 2015](#)'.

But while Anne Frank records interiority and her relationships with her sister and mother especially, Farah Baker provides a record of state violence, recording sounds of the Israeli Defence Force bombs, the darkness with no electricity, and the joy when, for a moment, the bombs stop: 'I woke up today without drones, f16s, ambulances, blasts sounds, so I smiled from the deep of my heart #Gaza Modified Date: August 13, 2014 5:37 PM.' She notes that for her and other Gazans, coming home to find the electricity is not cut off is a joy. Farah Baker's work has immediate extensity, with retweets around the world, its multimediated witnessing of trauma read through Windows software cluttered and surrounded by advertisements for the banal and the mundane. She joined Twitter in March 2013; by February 2016 she had 13,700 tweets, with 172,000 followers and 24,200 likes.

Anne Frank addresses her diary to 'Dear Kitty', a fictional friend to whom she can communicate her most intimate secrets. Anne Frank, to begin with, has no intention of writing for the purpose of someone else reading her diary. But, according to a 1995 edition of the diary, this changed in March 1944 when Anne listened to a radio broadcast by [Gerrit Bolkestein](#), a member of the Dutch government in exile, who asked that people keep diaries and letters with a view to creating a future public record of German occupation of the Netherlands (Frank 1995). It was only after listening to that call, according to Otto Frank, that Anne Frank edited her diary and rewrote it with a view to publication.

What is also significant is that what Anne Frank intended for the public, was not the version that Otto Frank had published. The manuscript underwent further editing by Otto Frank prior to publication: he cut out sections that dealt with Anne Frank's sexuality because at the time it was not 'customary' for young girls to write about desire and sex (Frank and Pressler 1997: vi) It was only later that the full version of Anne Frank's diary was published which included her original references to sex, sexuality and her negative feelings towards her mother. While Farah Baker's diary is ongoing in the public domain at the time of writing, it was only subsequently

that Anne Frank's words were embedded in legacy media and later global memory through films, memorials and study centres. *A Diary of a Young Girl* has been translated into 67 languages and sold more than 31 million copies worldwide (Huttenbach 1998) One fears Farah Baker's work may slip from view after the initial surge in interest in her posts. Anne Frank had her father, Otto, to champion her memory and promote the publication and dissemination of her diary.

Farah Baker's 'diary' includes images of her own and others, retweeted films and videos, as well as other users' comments and likes in response to her posts. It is a multimedia memory text produced for the world. In this respect her work is much closer to that of another teenage witness and female victim of the Holocaust, Charlotte Salomon, whose work *Life? or Theatre?* used a variety of media to document her experiences intentionally for a public readership. Salomon's work, however, was forgotten for many decades after the Second World War: it defied convention in terms of form but also in terms of the controversial content of its memories, which included the memory of having to share a bed with male relatives, and discussion of the prevalence of female suicide.⁶

Farah Baker's witnessing is 'conventional' in terms of the new media form of the day—public tweets and retweets—but ground-breaking in that it is still relatively 'new media', that is, purportedly transforming journalistic practice. Her work includes no sexually explicit material but it does include politically charged material about the Israeli Defence Force's treatment of and policies towards Palestinians, particularly those in Gaza. One post, for example, includes an image of a young teenage friend mourning on a grave of her mother, 'a martyr of the Zionists' on Mothers' Day, 'This girl's mom martyred in the last war on #Gaza she went to her grave after school to wish her a happy mother's day Guess What@Farah_Gazan, 27 March 2015'. Another post shows a woman confronting an Israeli Defence Force soldier with the words underneath 'no, no, no, How about you go back to where you came from. This is my land, my country, my house.'

Farah Baker's posts are usually addressed not to her fellow Palestinians, or to a friend, but to 'Dear Zionist'—whom she characterises as the enemy, the occupier of her land responsible for the bombing of her home, her friends and her family. Zionism grew in the late 19th century in Eastern Europe in response to repeated acts of anti-Semitism and murderous pogroms against Jews. Zionists were people who sought to establish a Jewish homeland in the land of Palestine, which then became the state of Israel. But to Farah Baker as a critic of Zionism, a Zionist is a colonialist who has expelled native inhabitants and through violence continues to

occupy land that formerly belonged to Palestinians, including the Gaza Strip in which Farah Baker lives and which was being bombed by the Israeli Defence Force. In this way Twitter has enabled Farah Baker to reach out, and provoke a reaction with an audience outside of Gaza not only through Twitter but, for a short while, through the mainstream media as well.

CONCLUSION: TOWARDS A FEMINIST WITNESSING

What these examples suggest is that through mobile and social witnessing the global memory field does enable more variation in terms of who can mobilise memories on the ground, and the kinds of masculinities and femininities these may initiate. Yet, at the same time, the examples also suggest that, despite the evident changes arising from the rapid velocities, transmedialities, extensive mobilities and changing modalities of memory in the Global Age, memories of women in mainstream journalistic memory practices are still marginalised, restricted in terms of symbolic content and discursive power, and tend to show women as victims rather than active agents. Even in the case of Farah Baker, after an initial flurry of interest by the mainstream press she remains confined to the domain of the social network within Gaza.

In the Global Age, what is evidently discontinuous from legacy memory technologies and mnemonic practices is that mobile witnessing and social media allow women and men to connect with other active memory agents: they can connect across physical locations and digital spaces and across public and private domains. This resonates with a study by Kirsty Hess (2014) of small town newspapers in the US, in which she develops the concept of ‘mediated social capital’. This, she suggests, explains how social media enable new kinds of connections that bond, bridge and link stories. Hess makes clear that while microblogging does not overcome and eradicate already established inequalities, and in fact can serve to reproduce further inequalities, it is reshaping the everyday interactions of people in terms of the sticky points, the valencies, made possible through connecting memories together. Farah Baker makes the connection between herself and Anne Frank and between herself and her enemies in ways that would not be possible without Twitter.

So what happens when feminists, women and men, consciously seek to create particular memories of women in ways that evidence human agency and women’s centrality to human life? What happens when women campaign and document on behalf of women? What is happening to what may be termed feminist memory in the Global Age? In the final substantive chapter I examine how feminist memories are being mobilised in ways that may ensure the longevity and the inclusion of women’s stories in the Global Age.

NOTES

1. There is not scope within this chapter for an extended discussion of theoretical perspectives on the public sphere versus public spaces but suffice to say that the idea of the public sphere, well known from Jurgen Habermas's *Structural Transformation of the Public Sphere* (Habermas 1989), has been well critiqued by feminist scholars (Elstain 1981; Felski 1989; Fraser 1989, 1990, 1992; Landes 1992; McLaughlin 1993; Pateman 1988; Reading 1996) that there is, in my view, no need for yet a further rehearsal of these arguments in full here. It is the feminist idea of the public sphere as constituted through heterogeneous and porous public spaces that is invoked here and which, as the reader will see, is given further credence through this study of memory in the Global Age. Feminist studies share three contentions in relation to the idea of the 'public sphere': the androcentrism of Habermas's account; the assumption of the public sphere's singularity and homogeneity; and the public sphere's underlying Enlightenment assumptions that privilege reason over emotion, masculinity over femininity, male over female and citizen of the nation-state over the mother-wife of the family.
2. While the narrative of the 'War on Terror' and the global age do not completely coincide in terms of globalisation, the advent of mobile and social witnessing is something that has accompanied and been part of those narratives.
3. My own work in Poland for *Polish Women, Solidarity and Feminism* just after the collapse of communism in 1989 sought to document the stories of women in Solidarity and the abuse by men, and the state (Reading 1992) with parallel work as a playwright testifying to my own and others' experiences as survivors of child sexual abuse (*Kiss Punch Goodnight*, Reading 1988).
4. Readers are directed to the image of the Situation Room which as a work of the US Federal Government is in the public domain and may be viewed on line https://en.wikipedia.org/wiki/Situation_Room.
5. Wu and Lee suggests that there are cultural differences to the uses of micro-blogging sites: Fu and Lee for example in a study of weibo (microblogging) by professional Chinese journalists found that to a modest extent it allowed for some forms of dissenting practice and opinion, in ways that were absent in the practices of Western journalists, who normalised their use according to professional standards (Fu and Lee 2014).
6. I analyse Charlotte Salamons' remarkable work in *The Social Inheritance of the Holocaust* (Reading 2002: 57).

PART III

Actions

Global Stories

Digital technologies network human memory like no previous epoch. Perhaps it is a consequence of this that the 21st-century feminist has become an ‘autobiographer, an artist of the self’ acting as an ‘interface between the private and the public... a woman turned inside out’ (Cusk 2011: 19). Yet, although gendered memories are now mobilised and securitised using mobile and social technologies across trajectories that do indeed seem to turn gender inside out, the global memory field also brings the outside in. Structural inequality and violence as well as opportunities for equality and liberation are brought into the home, into the body and internalised into the repertoires of the memory and the mind. I conclude this book by asking what actions in the Global Age are needed to make feminist memory work.

The 21st-century feminist in the Global Age needs not only to be an artist of the self: she or he is required to be more than ever a collaborator, a connector of memories and the stories of others: she or he is not so much an autobiographer (telling just her or his own individual story) as an activist mnemologist—one who studies, researchers *and* actively creates and mobilises social and collective memories. The 21st-century feminist is one who brings the outside in, as well as turning those outside structures inside out. This final part of the book ‘Actions’ connects the theory of the global with practice to examine how the praxis of the feminist mnemologist might effectively mobilise stories and memories of women in the Global Age.

The various domains of memory studied in this book have shown that the combination of digitisation with globalisation that produces the global memory field does enable the articulation of new memories of gender and gendered memories in some ways. Yet, at the same time there are continuities in terms of gendered memories, in terms of legacy memory technologies, and in terms of memory practices: memories in the Global Age are not necessarily more gender-equal or more inclusive than those memories captured, recorded and shared through legacy media. This suggests the need to rethink the ways in which academics, those in public memory institutions, and working in NGOs might best do feminist memory work, and consciously capture and create, curate and mobilise 'feminist memories' as opposed to simply memories that are unconsciously gendered.

In the course of writing this book over the past five years, connective digital cultures have developed exponentially. In addition, my own position as a feminist and the kinds of work that I am engaged with has also transformed. Thus, this final chapter, drawing on a genealogy of what may be termed feminist memory work and feminist memory studies, first discusses what might be meant by feminist memory before focusing on a collaborative live digital memory project called *Phenomenal People* in which I collaborated with Fuel Theatre, acting as feminist academic advisor as well as writing and performing. I critically examine some of my own practices as a storyteller seeking to consciously contribute to the mobilisation of feminist memories to enable more equal memories of gender and gendered memories. The key, I argue, is that feminist memories and stories that articulate the past, whether it be in terms of events or people, are critical for the next generation of women and girls, as well as men and boys, if there is to be any hope of further transformation towards a gender-equal world. What is important, we will see, is how to make memories that both travel and stick.

The chapter ends by summarising and synthesising the key findings of the previous chapters that have sought to track and trace the trajectories of memory assemblages across the global memory field. I bring together the themes of the book and some of its findings whilst also suggesting that within the global memory field what is now important in relation to feminist memory work is the conscious creation and active mobilisation of memories that seek to include women in ways that are active, resilient and hopeful. While digital technologies are transforming memories of gender and gendered memories, this is not necessarily in ways that will benefit women, or create a more equal society. In contrast, the feminist praxis of storytelling that consciously seeks to create and mobilise stories within the

global memory field to create the reality of a better future is, I argue, key to the work of the feminist mnemologist and the development of feminist memory studies.

The chapter begins with a brief genealogy that shows how the telling and handing-down of women's stories and memories has long been part of feminist campaigns for equality, as well as long being part of women storytellers' and artists' concerns.

FEMINIST MEMORY WORKS

In the National Museum of Australia in Canberra there is a display of rock art from the Australian Kakadu National Park that includes the depiction of a woman aiming a spear. Who made the image and why is lost to us, but 20,000 years on the image seems exceptional in comparison with dominant historical constructions of indigenous men hunting and women gathering. Such an image is also confounding because the erasure of women's lives and stories and the erasure of the movement (feminism) to stop women's erasure has been ongoing over millennia, as Silva and Mendes note in the Introduction to their collection, *Feminist Erasures: Challenging Backlash Culture* (2015). Feminist memory work thus remains crucial: it acts as a bridge between activism and academia and works against the current of erasure, as Red Chidgey suggests in her website on feminist memory. Hence a vibrant subfield within memory studies that intersects with gender studies and feminism constitutes the emergence of feminist memory work. However, this is actually not a new area of intellectual enquiry, neither did it arise with 'Second Wave' feminism. Rather, feminist memory work has been integral to the struggle for gender equality over millennia. While recent work certainly has placed feminist memory work more visibly within its frame (Chidgey 2013, 2015; Henderson 2006; Hirsch and Smith 2002; Rowbotham 1989) feminist memory work should be understood as holistic (part of the whole, integral) to a much longer history over the enduring symbolic struggle for stories of women to be remembered. As I argued in Chap. 4 this includes De Pisan's *The Book of The City of Ladies*, as well as enlightenment campaigners, such as Mary Wollstonecraft, who advocated the importance of legacies of historical inheritance and the history of women. It includes British reformers like Josephine Butler who, along with other Victorian feminists, saw feminist memory work as critical in enabling activists to have an impact through public documentation. It includes, too, the work of the historian and philosopher, Simone de

Beauvoir, who articulated the importance of witnessing and secondary witnessing to women's identity through the form of the memoir that then drew the reader's attention to the importance of what she saw as social memory (Tidd 2004: Note 23, p. 204). This book is a continuation of that work: the analysis that follows seeks to bring together the theoretical framework for understanding gender and memory in the Global Age to suggest the importance of praxis: putting theory into action through feminist creative practice.

FEMINIST MEMORY MAKING

The example of feminist memory-making I draw on here is one that I have been personally involved with in a small way as a playwright, academic and activist and which has sought to make a positive intervention into the structural and psychological violence arising on a daily basis for girls and women who face their own absence and invisibility from memory and culture.¹ The project, called *Phenomenal People*, was developed in 2014 and involved a collaboration between Fuel Theatre, a range of producing artists, and academic writers from King's College, London. As well as contributing to the development of the digital aspect of the project, I contributed a short script and series of performances called *To My Dearest Daughter*, the script for which is included in this book as Appendix 1.

The project was accompanied by the development of a digital and global or 'global' archive of phenomenal people—some of whom were famous and well known, and some of whom were much less well-known and had lives that were not necessarily going to be remembered in the public domain. The interactive website included hundreds of stories that could be uploaded by anyone. The basis of the project was to provide a living feminist archive as a counterpoint to the ongoing symbolic annihilation of women particularly in the news and mainstream culture, but also within a commemorative culture that emphasises war and militarism.

The project is also a reminder of the long-standing importance of the imagination to feminist memory work, discussed in Chap. 4: it sought to provide, as did Christine de Pisan in the 15th century, in *The Book of The City of Ladies*, an archive for memories of phenomenal women from history, science, politics and the arts. De Pisan's book, published in manuscript form prior to the development of the printing press, as I explored in Chap. 4, imagines through the written word a city built for all the women of history. If Christine the Pisan had been alive in the Global Age she

would probably have created her city as a website or video game. De Pisan was motivated to write her book because her father had said to her that women had never been leaders or philosophers. As an act of resistance and rebellion, de Pisan consciously sought to bring together historical figures of women who could then provide a different kind of future for women through teaching them about our past within the new technology of ‘the city’ captured in the manuscript.

Similarly, the Co-Directors of Fuel Theatre, Louise Blackwell and Kate McGrath, stated that they created *Phenomenal People* because ‘We believe more stories about women should be celebrated in society. We are two women leading an arts organization and are aware that many stories told are by and about men.’ (Blackwell and McGrath 2014 <http://www.phenomenalpeople.org.uk/about/>). They set up *Phenomenal People* originally as part of the Women of the World Festival at London’s South Bank Centre in 2011, and commissioned fifteen women artists to present short performances about a woman that they felt had inspired them. The performances were then enacted before a live audience who joined in with food and drink to celebrate in the basement of the Southbank Centre at the same time as being streamed live to over 10,000 people through a Tumblr site (Blackwell and McGrath 2014). Two years later, the Cultural Institute at King’s College London commissioned Fuel as one of several ‘Knowledge Producers’ which aimed to connect artists with academics to extend knowledge and understanding. The collaboration, of which I was asked to be a part, led to the idea of extending the project both through further live performances and a digital garden archive to which people could upload their own phenomenal people. Blackwell and McGrath explained that they deliberately chose to use the word ‘people’ rather than ‘women’:

Phenomenal People is about raising the profile of women with both men and women. Using the word people is deliberately provocative. Stories of men are everywhere, statues of men are everywhere. Women are people, men are people. This project is about women for both women and men. We like the idea that someone may look at the website and be surprised that all the people are women. We want men to contribute stories of women who inspire them. If the project was called *Phenomenal People* and then was all about men it would not surprise us, it would be another place where the stories of women are excluded. (Blackwell and McGrath 2014)

Hence *Phenomenal People* was created to provide stories to inspire resistance, resilience, struggle, agency, optimism and hope about women by women and men for women and men. The site attracted 7,000 unique viewers viewing over 20,000 pages in the first year and just under 500 nominations of memories of inspirational women were uploaded by the public to the site by August 2015 (Blackwell, Personal Communication 2015a). The interactive archive of stories and memories was then actively provoked through the continuation of live performances at various venues including London, Colchester and Stockton-on-Tees.

My own role was as an academic advisor thinking through the implications of digital interfaces and digital memory and then contributing as a storyteller to explore this work in practice drawing on my experience as a playwright and performer. I was asked to write a ten-minute piece for performance about a woman who had inspired me: after various alternatives, I decided not to write about a past individual woman, but instead would collectively connect the imaginary and memory dialogically through a letter to my then seven-year-old daughter: I wanted the sense of a story that would provide an opening for future memory restitution for my daughter/the daughter and all seven-year-olds as well as a sense of restitution for the seven-year-olds in the past who would have liked such a letter. So, I deliberately wrote the dialogue using a legacy medium ‘the letter’ (not an email) that would then be mobilised through live performance in combination with digital means. The letter is published in this academic book as Appendix 1: *A Letter to My Daughter*. The letter, as well as being performed with Fuel’s project, has been publicly read on a number of occasions: notably as part of a keynote in Finland on *The Ethics of Storytelling* (Reading 2015b); and as part of my Inaugural Professorial Lecture *A Story of Memory: Gender, Materiality and Technology* which was also then videoed and uploaded to the King’s College website and YouTube (Reading 2015b); it has also been mobilised through social media.

The *Phenomenal People* project involved what John McGrath in *A Good Night Out* (1996) suggested should be a broad ‘arc of experience’ in which the audience is taken care of upon entering the theatre. Thus the performances took place in environments that resembled a garden: the conventional indoor lecture or theatre spaces were taken over and recreated as outdoor spaces—gardens with living grass on the floor, trees and plants and flowers. Audience members were served lemonade and offered ‘vagazzle’ cupcakes before watching performers tell their stories of phenomenal people for up to 15 minutes, focusing on remembering a woman who had been an inspiration to them.

Memories included the story of foster mother Joyce Dimmock told as a puppet show by the artist Akiya Henry; the story of Malika Booker and her idol Susan Taylor who was editor of *Essence Magazine*; Pamela Cox the film-maker told her story of a memory of Margaret Thatcher. The story of a woman who migrated from Ireland to Australia known in her family as 'Great Aunty V' was told by Victoria Mosley. The deaf actor Jenny Sealey told the story of Caroline Parker a deaf actor and sign song and story woman, and taught the audience how to sign story Gloria Gaynor's 1973 hit 'I will Survive'. The artist Lesia Rea talked about women's desires and demands through using an ironing board as a site of protest. She asked women on the high street in each town where the garden was performed what it was they wanted and wrote down women's demands on mini placards that she then put on the ironing board for the performance. Women's wants included the mundane, the insane, the political and social. Women asked for a cup of coffee, for an end to war and for a roof that no longer leaked. Most moving was *A Letter to Oprah* from a group called Marginal Voices which repositions women who have been subject to traumatic experiences transforming those experiences in something positive and life-enhancing. The audience was told the story by one woman of her experiences of being trafficked from Nigeria and then imprisoned as a sex slave by man in the UK by whom she was repeatedly raped for three years before she escaped. She told the story as a letter addressed to the TV celebrity Oprah Winfrey, whom she saw as a role model and source of inspiration.

In terms of discrete memory content the memories of gender were thus providing positive role models of and by women. However, as this book argues, memory and its analysis is not bounded or discrete, rather the ways that memories move and change is also critical to understanding gendered memory and memories of gender in the Global Age. What is thus also important, in order to understand how feminist memory works, is to trace its mobilisations and securitisations across the various trajectories of the global memory field.

My own piece, *Letter to My Daughter*, was deliberately transmedial: it crosses and transforms itself from handwriting to digitally typed text, from letter to reading to performance, it is to be found in digital format online; it can be digitally downloaded and it is published in this book. The strategy was to create a mini moving global story. Secondly, I consciously sought for the story to inhabit a range of temporalities: the piece may be read privately or out loud; it may be experienced live through performance; it may be rapidly downloaded from the on-line archive of the *Phenomenal People* website; it will stay preserved for a while in paper and

electronic form in this book. The content itself alludes to a different sense of past: this is not the past behind us, but a past that is in front of us: the future past. It is written to an imaginary version of my daughter/a daughter/the daughter in us all in the future. At the same time, the letter recalls the struggles of millennia that women have been through, as well as other kinds of temporalities beyond human-centred clock time: the organic time of ‘800-year-old sentient oak trees’ and the spiralling temporalities of Australian indigenous dreamtime. My daughter is imagined at 17 and 70 and in relationship to other seven-year-olds and other daughters. It seeks to make multiple connectivities, inviting online visitors to read the letter to their own daughter, to download the text as a pdf. Through its online presence it seeks multiple mobilisations via other social media platforms, including Facebook and Twitter, as well as being provoked through live readings with *Phenomenal People* and through other live performances as part of keynotes and teaching.

One of the on-line comments written in response to the letter from an audience member Paivikki Romppainen (11 June 2015) was this:

I heard you reading this letter at the Turku conference, the ethics of storytelling. I was almost moved to tears, as were probably many others. I’m 47, but I still wish I had heard something like these words from my mother, although I know the most important words often remain unuttered. Thank you for saying the sentences, they have found their way to me and I will carry them further in my heart, an old girl still feeling like a seven-year-old at the best of times. PS. The best two sentences are the last two.

The last two sentences this commentator refers to are those that in which I suggest the need for all daughters to go beyond the bondage of memory, to shuck off the past and eschew their own mother’s inheritance, at least for a while,

Yet, I would also hope my dearest daughter that you will roundly reject (for a time) what you inherit from your mother and make your own path with as much energy, optimism and rightful indignation at 17 and 70 as you have at the age of seven. Let this be so not just for you but for all the world’s seven-year-old girls. (Reading 2014; see also Appendix 1)

These final sentences sought to change the modality of the memory. The letter suggests a trajectory for the daughter’s memory that seeks to deny the necessity of its own content which allows her to create her own memories. I wanted that sense of a future past in which girls and women are so replete

with cultural memories that they will be in the happy position of then being able to deny the necessity of their content. In the Global Age, we are nowhere near that place, but in my imaginary I suggest that is the place to aim for in some imagined equal future.

In relation to the other elements of the *Phenomenal People* memory project, tracing the trajectory of transmediality shows that memories were changed and added to across different media, including song, live performance, shadow puppetry, image, written media and online texts. At every performance the new stories that had been recently uploaded to the website also then had their names sung in a live performance by the opera singer Melanie Pappenheim. The speed with which it was and is possible to access the stories of women is rapid, as is the speed with which stories can be uploaded and published and then join in the live performance via the website. The stories are also always dialogical: one performer tells the story about someone else that is significant to them in some important way. Furthermore, the combination of website and live performance makes active use of both the *x*- and *y*-axis of the global memory field in terms of the material and energetic formation of memories. Fuel Theatre as a memory agent enables the mobilisation of changing and growing assemblage of memories of women which they also combine with other mnemonic capital: the performance at Colchester in the UK in May 2015, for example, was in *The Guardian* newspaper's top 10 picks for the week. The content that has been uploaded in terms of memories of women includes both famous women and the not-so-famous: anyone can upload and archive a story of a woman they consider to be phenomenal.

Fuel Theatre company also had an active strategy of seeking to facilitate connections or bonds between the content of the live performances, the website and on-the-ground connections: it did this through performances being accompanied by preliminary workshops in schools and postperformance discussions, which were very productive and effective. The project included an education pack, developed by Christina Scharff, also at King's College, that teachers could then use in schools under a section on the website called 'Learning'. The 'Take the Quiz' part of the website is also highly connective and rapidly takes the user to other phenomenal women as well as other sites.

However, my own analysis of the connections of the website and archive with other points in the global memory field suggests that the project is sometimes lacking in terms of valency or connections with other memories of women and feminist memories. Around two-thirds of entries include just a sentence about the woman, such as the page for Margaret Mead. Without such connections the story or memory of these women remain discrete and

isolated: only with further links will feminist memories be mobilised extensively within the global memory field. This is probably as a result of the process of nomination which invites up to 1,000 characters, and an image, but does not suggest that the text include links to wider sources of information. However, what is also significant here is that the format and processes of the site remain fluid rather than fixed or viscous. When I asked, as part of reflexive research for this book, Louise Blackwell, the Co-Director, about this lack of stickiness or connection to other sites she said:

I think it was something to do with not wanting long essays to make it easier for the reader to navigate and I think the decision about mentioning links was to do with wanting people to stay within the site. However, this is a timely question because we are about to change the copy on the nominate section as we think it is not specific enough. This came from a discussion we had when we did the live version in Colchester and lots of the students submitted very short descriptions. So, we are going to suggest that people also give a link (Blackwell, Personal Communication 2015b)

An analysis of the *Phenomenal People* website and project suggests that while women have uploaded new memories of women: few men have done so. Some posts are anonymous so it may be that the men who have uploaded stories and memories have done it without their names being visible. Fuel director Louise Blackwell agreed:

Yes, although it is fantastic that women are nominating women it will only have true impact if men are also nominating and engaging too. This is part of the reason we called it *Phenomenal People* not *Phenomenal Women*. I want to try and address this in the future plans for it. (Blackwell, Personal Communication 2015b)

The site, then remains a living liquid site. This means that it can adapt and change, which it will need to do to strengthen the valency of its feminist memories to ensure their longevity and reach.

BEGIN AGAIN

Stories, and memories of stories are important, as Alistair MacIntyre argues: 'Deprive children of stories and you leave them unscripted, anxious stutterers in their actions as in their words' (1997: 247). Yet, tellingly and without any sense of irony all the stories and storytellers MacIntyre

cites are biased towards stories of boys and men. What happens, then, when women and girls are routinely denied stories and memories about themselves as active and resilient agents of our own lives? For many hundreds of years, indeed longer according to some accounts, women and girls have long been left unscripted, although despite this we are not anxious stutterers in actions and in words. Throughout history, in spite of being scripted out of memory, as my analysis of Christine de Pisan's *The Book of the City of Women*, or Katherine Burdekin's *At the End of the Day's Business*, in Chapter 4 shows, women have struggled, successfully imagined and told different stories and different pasts, mobilising a fuller set of memories in which women are included.

Digital technologies, especially mobile and social technologies might seem more easily and more readily to provide new voices, and new memories for women, hailing a new epoch in terms of the gendering of memory. Yet, thinking through gender and memory within the Global Age in terms of its trajectories across the domains of the body, the home and the public reveals a more complicated, contradictory and nuanced picture. This suggests that women now more than ever need stories about and memories of women that stick within the global memory field. This final chapter suggests what happens when feminists in the Global Age consciously seek to develop collective archival live memories that place women and their achievements at the centre. Feminist memories need actively to ensure connections through utilising the trajectories of gendered memory assemblages within the global memory field, consciously seeking to make these transmedial, extensive, and with multiple temporalities, changes in modality and as much stickiness as possible across the personal and public domains.

CONCLUSIONS: GENDER AND MEMORY IN THE GLOBAL AGE

I began this book with the confession that early on in my own life I was curious as to why girls and women figure so little in family and public memories. My curiosity was heightened over the course of my career as a writer and academic and as the world around me changed through and with my own digital knowledge practices within globally networked memory. The book has sought to explore through particular domains that give emphasis to mobile and social technologies the ways in which these are changing the gendering of memory and how memory is gendered.

In Chap. 2 I examined the wealth of literature on gender, memory and technology. While this usefully highlighted the historical genealogy of feminist memory work, it was evident that this does not provide in itself the analytical framework needed for understanding the intersections between memory, technology and gender in the 21st century. Chapter 3, ‘Global Memory’, drew on studies from media and cultural studies and globalisation to contend that memory in the 21st century is undergoing a phase shift involving the synergetic dynamics of uneven globalisation with uneven digitisation. Together, these are creating a new cultural, psycho-social, political, and technological field, ‘the global memory field’, a networked field through which memory agents (individual autobiographers, journalists, archivists, as well as memory institutions such as museums, states and NGOs) mobilise and securitise memory assemblages. The global memory field, as with fields of culture more generally, is gendered in multiple and uneven ways which intersect with other power differentials, including race, ethnicity, age, class, sexuality and disability.

The same chapter then argued that in addition to conventional methodologies what is needed are transvectorial methods that can provide an understanding of the mediated mobilities of memory. Methodologically, the book has sought to find innovative ways to analyse how gendered memories travel across time and space using as a guide six analytical trajectories that trace the ways in which memories are mobilised and securitised. However, these trajectories are not definitive and are certainly not suggested as the only methodology or mode of analysis. The transvectorial methodological framework, nevertheless, is useful to decentre and disrupt conventional methodologies foregrounding a world analysed on the move. Conventional or legacy methodologies have their roots in 19th-century positivism and by contrast are largely static, requiring on some level the researcher to fix and analyse discrete meaning-making. If such legacy methods are used in analysing 21st-century transformation and change it is suggested in this book that they should be employed in combination with transvectorial approaches.

Chapter 4, ‘Global Utopias’, opened up the domains of memory by using ‘the feminist mnemonic imagination’ and ‘feminist imaginary’ to enable a double travelling or disembedding from the global memory field. I examined utopian imaginaries of gender, memory and technology at particular points of revolutionary technological mnemonic change. Using what Levitas (2013) terms ‘the utopian method’ enables the feminist mnemologist to reflect creatively and critically through a double

disembedding from the present by imagining a future, whilst coming back to the past and present. In addition, the idea of ‘the mnemonic imagination’ suggested by Keightley and Pickering (2012) in conceptually reconnecting the imagination with memory serves to bring into memory studies hitherto excluded elements of memory, dismissed as largely unimportant because they pertain to everyday experience and the seemingly mundane. This can offer the feminist mnemologist resonant insights for understanding gender, memory and new technologies since they enable the everyday and seemingly mundane to be recorded and archived in new ways.

Chapter 4 thus argued that recognising the feminist mnemonic imagination is critical to understanding memory in the Global Age. Studying how human beings have imagined the ways in which technologies shape and may in turn be shaped by men and women enables the scholar and reader to critically examine the global epoch and gain insight into the networked field in which the scholar is embedded. The chapter thus focused empirically on the literary fiction of several feminist authors alongside well-known books by male authors that configured gender in conventionally patriarchal ways. In particular, the chapter analysed Christine de Pisan’s *The Book of the City of Ladies* alongside Thomas More’s *Utopia*. It also examined the work of the lesser-known feminist author Katherine Burdekin alongside George Orwell’s well-remembered dystopia *Nineteen Eighty-Four*, concluding with a discussion of *A Woman on the Edge of Time* by the feminist fiction writer Marge Piercy.

Analyses of these utopian and dystopian fictions showed that human engagements with technology and technological practices are imagined as double-sided: new technologies are seen to liberate women but also oppress women further through erasing women’s history and memories of the past. In feminist literary utopias new technologies enable new kinds of ways for imaginatively remembering women and gendering memory. The feminist imaginaries entreat readers to activate and mobilise positive memories of women to counter and prevent further patriarchal oppression. The chapter thus anticipates the final chapter of this book in contending that it is up to those women and men on the edges of time to engage in creative feminist acts of remembering that may then engender memories of equality.

Chapter 5, ‘Global Body: Birth’ marked the first of three chapters that took the reader through the domains of the body, the home and public spaces of the global memory field. It combined autoethnography with other studies on pregnancy and foetal imaging to examine changing

trajectories of gendered memory. It contended that the gendered memory of the foetus was becoming multiple and transmedial as opposed to singular and organic. The temporalities of the ultrasound image changed the velocity with which memories were made with multiple temporalities: the organic growing memory of the foetus was fixed in time into digital ones and zeros which overrode the biographical organic temporality of the mother. The interior temporality of the foetus was overridden by the temporality of the father. Data could be rapidly transferred and transported and mobilised. Tracing the trajectory of extensity revealed that this had few limits: whereas the personal individual and organic memory of the growth of the baby was once enplaced and embodied in the mother, within the global memory field the foetal image became public memory, a public record, a public memorial of a foetus who may or may not live as a boy, as a girl, as a woman or a man. The extensity of the gendered memory image was also traceable through uneven global demographic changes: in India and China ultrasound imaging has led to prebirth sex selection and a legacy of gender imbalance with the evident absence of girls and women and the memories of their lives that would have gone with them.

Tracing the trajectory of *modality* revealed how data originally captured for a medical purpose changed modality to be reused for social memory and entertainment. The medical image, which denied the content of the personhood of the mother and her womb, fixed the patrilineal surname of the mother, along with the labelled parts of the future baby which were then reassembled for the public eye. Tracing the trajectory of *valency* exposed how the foetal memory assemblage had sticky points with multiple memory images enabled through the human uses of mobile and social networking. Organic body memories were reconfigured through digitisation intervening into memories of the development of human beings and their subsequent gendered life narratives.

Chapter 6, 'Global Home: Life' took the reader into the domain of the home, family and household. It began by examining literature on mobile phones and gender before analysing data from two empirical studies conducted almost ten years apart in London, UK. Women were asked about their global mnemonic practices through their mobile phone use. The studies highlighted differences between the digital born and digital migrants, those who have adopted digital technologies in the course of their lifetime. Tracing trajectories of memory from the domain of mobile phone and home, suggested that women's mnemonic practices in the Global Age took place within a networked milieu: memory articulated at the site of the gendered body was simultaneously distributed around the world.

Yet, the mnemonic affordances of the domain of the mobile phone was double-edged, as suggested in the imaginaries of gender, memory and technologies discussed in Chap. 4. Mobile and social technologies enabled women to mobilise data, reminders and memories as a parent and worker within neoliberal capitalist culture. Tracing the trajectories of the ways that women mobilised memories of domestic and personal life showed how women used the global memory field to traverse the gendered contradictions of late capitalism which requires women to perform in the public sphere, whilst maintaining ongoing responsibilities and performances in the private sphere. What was mnemonically dissimilar was that women were able to mobilise memories of the ordinary, the mundane and the everyday, which included their unpaid, invisible domestic and affective mothering work within patriarchy. This is unlike the gendering of memory within the legacy memory field in which many aspects of women's lives and working practices went unrecorded, unremembered and undervalued. One conclusion from this is that the global memory field is able to remember the gendered labours of love in ways that the legacy memory field did not.

The studies in Chap. 6 also point to the need to retheorise cultural memory in the light of digitisation and globalisation to account for new kinds of porosity and exchange between the public and private, the material and the energetic, the organic and the inorganic. This, in turn, has implications for how gendered memory is mobilised and securitised across these discursive structures through various material practices. The chapter suggested that it was not an accident that women described the state of being without their mobile phone as being both 'naked' and 'free'. Thus, another conclusion is that the global memory field simultaneously enmeshes women in a network of reminders that include not just what to do within patriarchy but who to be: increasingly, it is a necessity for a woman (or man) to be inside the network, and yet only outside does a woman feel free.

Chapter 7, 'Global Publics: Death', then took the reader from the domain of the home to the domain of public spaces. The chapter focussed on news journalism and the ways in which mobile phone witnessing of terrorism and atrocity transforms the gendering of memory and memories of gender in the public domain. It began by examining literature on journalism and memory more broadly before then exploring studies of mobile witnessing and citizen journalism in terms of what they revealed about memory and gender. It then used several empirical case studies to highlight the ways in which mobile phone witnessing elicits new kinds of trajectories that may be identified in terms of the gendering of memory and memories of gender.

The chapter found that the global memory field through mobile and social witnessing of news events engendered more multiple variations of gendered memory and public witnessing but with evident continuities with legacy technologies. Despite evident mnemonic transformations arising from the rapid velocities, transmedialities, extensive mobilities and changing modalities of the global memory field, mainstream journalistic memory practices marginalised memories and stories of women and restricted symbolic content and discursive power to show women as victims rather than active agents. Mobile and social media allowed for new kinds of connections with people across hitherto poorly connected physical locations and digital spaces as well as across public and private domains. While this did not overcome established inequalities, in some instances it served to reproduce further inequalities, the global memory field reshaped everyday interactions and potentialities for connections that included how women may connect memories together.

Finally, ‘Global Actions’, Chap. 8, sought to examine feminist memory work in the Global Age with critical reflection on the trajectories of my own mnemonic practice through the Fuel Theatre project of *Phenomenal People*.

There is, of course, a lot that the book does not include. The focus is primarily on mobile and social technologies within three domains: the body, home and public space. There are many more multifaceted aspects to the Global Age beyond these particular technologies and domains but they are key in terms of recentring transvection or movement to thought. What is needed now is a study of the ways in which game technologies and virtual worlds memorialise gender; it would also be extremely interesting to study the ways in which not only violent and public forms of death, but everyday practices in relation to death and dying have new kinds of gendered trajectories within the global memory field.

It is without doubt a fact that this book derives from my own privileged position and vantage point within the global memory field that is Eurocentric and linguistically located within the dominant language of English. There are other very interesting studies to be done from other perspectives and other vantage points in terms of race and ethnicity, class, sexuality and global location. Such studies, it is to be hoped, might develop innovative approaches by using a global methodology that seeks to trace trajectories in addition to deconstructing the meanings of memories. This study also points to earlier moments in human history in which tech-

nologies have played a part in reshaping and changing human memory. There is so more to research in terms of how memory technologies have transformed or secured the forgetting of women and women's oppression over millennia.

Nevertheless, even with these omissions, and biases, I hope this book has some key epistemological implications that are relevant to a number of disciplines including media studies, gender studies and memory studies. The work reveals some of the granular changes that digital cultures implicate in terms of the gendering of memory and memory of gender. The study suggests the need for rethinking and reconceptualising cultural and media memory in ways that integrate the synergetic dynamics of digitisation and globalisation. The mnemologist's own ontologies are implicated by the Global Age: you and I read, write and think within the context of globalisation and digitisation which is brought to any study of memory. As writers, as academics, as feminists, as mnemologists the 21st century vantage point is now always within the nexus of these dynamics, which is why the imagination remains a critical tool of the mnemologist of provide a view of (y)our own entanglements.

The paradigmatic implications for memory studies, media studies and gender studies are, I would argue, fundamental: they require the decentring of inherited methods of analysis so that knowledge production shifts to within a transvectoral paradigm of the mediated mobilities of memory.

A gendered understanding of memory in the Global Age thus seeks to analyse not in terms of discrete bounded processes, but rather in terms of assemblages that move and change, attach and become detached; these assemblages are mobilised and securitised by memory agents with varying degrees of power and with varying degrees of memory capital. The feminist memory-maker is a storyteller who also views memory-making as a collaborative connective process in which feminist assemblages are mobilised not as singular, discrete and distinct acts but rather using different forms of memory capital and labour from the economic to the affective, the symbolic to the spiritual, across many spatial temporalities. This book is in itself an act of feminist memory-making, as is your act of reading.

As the 1930s feminist science fiction writer Katherine Burdekin's suggests in *Swastika Night*, the struggle for equality stretches over many human millennia, so, too, must the project of storytelling and mobilising memories. At the turn of the 20th century Mileva Maric, the first woman to be allowed to work towards a doctorate at the University of Zurich,

studying mathematics and physics, wrote in one of her many letters to her co-thinker, lover and then husband Albert Einstein:

I don't think the structure of the human skull is to be blamed for man's inability to understand the concept of infinity. He would certainly be able to understand it if, when young, and while developing his sense of perception, he were allowed to venture out into the universe rather than being cooped up on earth, or worse yet, confined within the four walls in a provincial backwater (Mileva Maric to Einstein, Heidelberg, 20 October 1897)

Without memories and imaginaries of the whole universe of stories of women and men, human beings are stuck going round the same eddies of a provincial backwater of unequal human development. Despite the grueling, repetitively marginalising routines of patriarchal culture and the dull unequal gendering of memory that institutionally and routinely forgets women and women's achievements, girls and women, and the boys and men with the wisdom to provide support for the feminist struggle, keep remembering with equal recognition.

Just imagine, instead of a provincial backwater of earth bound inequality, a future world in which children are allowed out into a global universe of stories in which girls and women are equally remembered with boys and men in all their glory. Then imagine how even more extraordinary women and indeed men would be on this ancient rock travelling through trajectories of time and space. In the Global Age, keep imagining this future, while recalling the complex gendered memories of the past.

In reading this book, as in its writing, you and I are implicated memory agents in the feminist project: so go now and tell tales in all their forms, whether writing an essay or an academic book, making up a story for children, posting an image to Facebook, tweeting a comment via Twitter, making a play with a website, curating a museum, or texting a friend. Feminists, which include both men and women as agents with power, should do all this, not with a view to permanently restoring gender equality or forever gaining justice, or telling the absolute truth, or, for once and for all being heard. No, go tell stories in all their forms to make a new connection, so that, momentarily, there is an assemblage with equal human agency. Let the story travel, connect, stick, break up, change, fall apart, and begin, again.

NOTE

1. As a playwright I seek to mobilise stories of women's agency and resilience. *Kiss Punch Goodnight* tells the painful story of Dawn, a survivor of childhood sexual abuse who stands up to her father. *Want* dramatises the story of three Polish women who loot and occupy a luxury goods shop under Polish Communism. *Hard Core* re-examines the stories of women in the Roman Empire. *Grandma's Garden* tells the story of Lottie, an elderly lesbian woman who rebels against the restrictions of her care home. *The Stoning* contrasts the transformational journeys of two women in a UK prison. *Falling* tells the story of the survival of Ket, a mixed-race teenage girl who goes missing. *RP 35* dramatises the story of Roza and her liberation from an abusive partner addicted to violent pornography. However, I felt that Fuel Theatre and my work on *Phenomenal People* is important to this book's discussion because it was developed and performed within the context of using digital globalised technologies. With the exception of *RP 35* and to some extent *Falling* this is in contrast to earlier plays largely conceived of and performed within what one could term the pre-Global Age.

Epilogue: Gender Recalled

No book arrives fully formed, though some are written more easily than others. This work has had a very long gestation, in part, because of moving from the UK to Australia and then back again within 18 months; in part, because of having two young children to raise while working; in part, because I dictate my work using voice-operated software, as I have done for more than two decades due to repetitive strain injury. And, finally, in part, because I have had the honour of being Head of the Department of Culture, Media and Creative Industries at King's College London, in which looking after members of that department has been my priority. Yet, this book more than any other book or piece I have written is the strenuous connecting together and extension of many years of my own work on gender and memory. Some of this work I critically reflect on here to point to some of the struggles that led to this book's development.

Long before the developments of everyday mobile and social media use I was thinking about media, memory and gender. With my PhD, 'Socially inherited memory, gender, culture and the public sphere in Poland' (1996) I examined across the different media of propaganda, public policy, literature and television structures how memory is a 'dialectical and gendered process by which society both remembers and forgets past events, feelings, thoughts and knowledge through representations' (Reading 1996: 1). Socially inherited

memory is 'not static or homogenous' but rather 'heterogeneous and dialectical, resulting in gaps and fissures' (Reading 1996: 306), memories cross borders and boundaries, affecting us 'simultaneously on an individual level as much as on the collective level.' (Reading 1996: 309).

In 'Scarlet Lips in Belsen: Culture, Gender and Ethnicity in the Policies of the Holocaust' I focus further on the trajectories of history, memory and cultural policy in order to understand the significance of the inclusion of lipstick in Quaker care packages given to survivors of Belsen. The lipstick, according to women survivors, gave them back the beginnings of their humanity which had been stripped from them in the camp (Reading 1999). In *The Social Inheritance of the Holocaust: Gender, Culture and Memory* (Reading 2002). I examine the cultural memories of the Holocaust through interviews with second- and third-generation men and women; the written word, in the form of the autobiographies of key Holocaust survivors; in key documentary and feature films; and through material culture and our interactions with it in the form of memorial sites and museums. I sought to understand how different kinds of communication technologies articulated gendered memories arguing, 'thinking about gender and memory is not based simply on counting the representations of men and women, or crudely arguing that women were more oppressed than men during the Holocaust, or for that matter stressing sole differences of experience.' (Reading 2002: 182). Rather, I suggest that the 'medium' of the mediated memory might be important in the gendering of the 'message'. Interviews showed that men and women gave different value to different media forms: young men in Poland, the US and UK samples gave more value to images, memories acquired from the internet, rather than words or conversations.

This finding is extended in 'Young people's viewing of Holocaust Films in Different Cultural Contexts' (Reading 2005) in which I examine the intersections between national, ethnic, religious backgrounds and gender in the reception of and cultural memories of holocaust films. The key, I argued, is the mnemonic community, with grandmothers handing down personal stories, and fathers providing narrative anchorage and interpretation when young people watched films and television programmes about the Holocaust. Young people remembered films and television programmes in which an important part of their socially inherited memory was the fact that their father was there with them watching. I argued at that point that the technology of the medium of mediated memory is also important it is also transmedial and intramedial:

The meaning of historical events articulated within films is thus not fixed or discretely and permanently made by one film or visual moment. Rather, the 'effect' in terms of meaning is intertextual: the same film may be understood and integrated into young people's memories in different ways over time and in different ways following the experience or consumption of other media in which the memory of the events of the holocaust is represented. (Reading 2005: 215)

By the noughties I began to study how the internet was changing memory in profound and far reaching ways. In 'Clicking on Hitler: The Virtual Holocaust@ Home', an essay that seeks to understand how memories of the Holocaust have taken on a 'virtual dimension', I draw on feminist cyberspace theory to suggest that the internet and computer use were gendered. In the 1990s women constituted only a quarter of internet users (Bergman 1999: 106) with men and women using computers in different ways (Bergman 1999: 90–107). By the late 1990s, however, men and women made more equal use of the internet (Jordan 1999). My research showed that what was significant along with gender was the political and technological economy of the internet: the dominant remembered sources for the Holocaust were attached to large public memory institutions; on-line memory practices took place within a commercial context of everyday material consumption and users all examined materials through WIMP or the standardised windows, icon, menu, pointer interface. This uses iconic rather than indexical memory, requiring the new acquisition and practice of mnemonic skills through a globalised digital interface which may both build on but also change established gendered patterns and mnemonic practices (Reading 2001).

In 'Digital Interactivity in Public Memory Institutions' (2003) I examined on-line environments and interfaces at the Museum of Tolerance in Los Angeles and the Imperial War Museum in the UK. I showed how men and women are using digital technologies in museums in different ways with girls and women giving more time to reading text accompanying digital photos, while 'boys and men would generally choose to press the enlarge photo button'. (Reading 2003: 71)

My work between 2003 and 2014 then engaged with gender and digital memories in relation to video games, interactive consoles in museums, mobile phones as memory prosthetics, changes in digital archiving of news stories and the regenerative possibilities of digital memories on the internet for marginalised communities such as the Roma (Reading 2001, 2002,

2005, 2009, 2010a, b). One of these studies ‘The Mobile Family Gallery: Gender, Memory and the Cameraphone’ on young people’s mnemonic uses of the mobile phone, I draw on and compare with follow-on research conducted in 2015 for this book in Chap. 6, ‘Global Home: Life’. The earlier essay lays the groundwork for a reconceptualisation of individual and collective memory by suggesting that mobile technologies provide men and women with wearable memories that intensify and resolve everyday gendered contradictions and inequalities (Reading 2008: 363).

In research on Roma people in Europe I argue that digital technologies offer marginalised groups such as the Roma new possibilities for mobilising memories of the mass murder and attempted genocide of the Nazi Holocaust. I argued that this was especially important since the Nazi policy of sterilisation of Roma men and women meant that those who did survive were subsequently not only marginalised in public memory but also denied genealogical memory because they could never have children of their own, ‘To sterilise someone erases the next generation, and with it disarticulates the very possibility of genealogical memory for all time’ (Reading 2012: 132). Projects for and with Roma through digital media thus offer new possibilities for the articulation of gendered Roma memories. In ‘Europe’s Other World: Romany Memory within the New Dynamics of the Global Memory Field’ (Reading 2013b). I argue that the enslavement of Roma people in Europe between the 14th and 19th centuries was largely forgotten in print media (Reading 2013b). Yet, the combination of digitisation and globalisation enables a new set of memory trajectories that is mobilising new kinds of Roma memory. I explore the particular example of a newspaper advertisement offering auction lots of ‘gypsy’ slaves for sale (Reading 2013: 26). Digitisation enabled the copying and recirculation of the advertisement which had been hidden within closed newspaper archives in Romania. Its circulation loosens what was a viscous forgetting of the trade and sale of Roma people in Europe as slaves. In addition, digitisation allows for the reassembling and reuse of this digitised advertisement across different transmedial sites (Reading 2013b).

Significantly, though, on reflection much of my work does *not* have gender as the main lens through which I examine digitisation and globalisation in relation to memory. One of the key conceptual innovations I make on the mobile witnessing of terrorism and state terror is a greater conceptual emphasis to the mobilities of memory within the development of the concept of the global memory field. What is notable is that as a feminist academic I was, nevertheless, unconsciously biased towards analysing

the stories of male survivors and used a gender-neutral perspective that obfuscated the androcentricity of the global memory field. In this book I have strenuously sought to retain and build a consciously feminist perspective to understand how gender is integral to memory in the Global Age.

There is one short article ‘Gender and the Right to Memory’ which is a short blueprint for thinking about gender and memory in the digital and global age and points also to the importance of memory rights and the right for women to have equality of memory in the public domain. I argue that the embedded social processes of cultural memory which include acts of witnessing, public testimony, the creation of archives, the curation of exhibitions and institutional public memory narratives, public memorials and commemorations, the writing of autobiographies and other mediated versions of the past, are all ‘informed by and inform gendered roles, values and norms’ (Reading 2010a: 12). I give the example that within many world faiths women have historically been devalued as witnesses, which has, in turn, impacted on the kinds of stories that are preserved within public cultures. At the same time, I argue

how memory works in relation to gender is dynamic and travelling: it is not fixed or always directly linked to identities. It can change in different locales and times.... It is not simply that women’s cultural memories may be forgotten and men’s remembered, but rather how these resonate or not with what is acceptable or not in the public sphere in relation to gendered norms and values in particular historical and cultural moments. (Reading 2010a: 12)

Hence in postconflict societies, with the return in peacetime to ‘normal’ (unequal) gendered power relations, stories of mass rape and sexual slavery during the conflict are often silenced (Reading 2010a: 12). The essay also argues that the inequalities of gendered memory are situated within a digital political economy, ‘in which some memory agents are more powerful than others, and in which some countries and corporations hold greater memory capital’ (Reading 2010a: 13). Memories are transnational and transcultural, with national boundaries providing little sense of containment as memories move with people, and without people in the form of cultural artefacts and mediations (Reading 2010a).

This earlier work provides much of the intellectual compost for the key questions and analytical framework developed in this book on gender and memory in the Global Age. But what this review also recalls and reflects on is the ongoing struggle of the feminist academic

(man or woman) to remain strenuously conscious and aware of internalised sexist bias in analysis and theory. More widely the question for memory studies is how to properly integrate a feminist perspective so that it does not merely sit alongside 'mainstream' work on memory but rather changes the androcentric inheritance of how you and I think in revolutionary ways. In my own work I realise in writing this that I have unconsciously always written to two different audiences: those readers who I know will be interested in gender and a feminist agenda for human equality and those (mostly men) who I know will not. Yet if the fundamental and enduring inequality of gender is not integrated routinely as part of all research it is impossible in my view to recall and create new knowledge that will really change the world. This book is an attempt in small part to generate reconnection tissue to do just that.

APPENDIX

LETTER TO MY DAUGHTER BY ANNA READING

Letter to My Daughter was written by Anna Reading as an original contribution to Fuel Theatre's *Phenomenal People* project in the UK in 2014–15, which combined live performances with the development of a digital archive of phenomenal people. New memories of phenomenal women were performed live at various venues in the UK in 2014–15 including at the Calm Down Dear Festival at Camden People's Theatre (October 2014), London, Stockton on Tees (October 2014) and at the Art Exchange, Lakeside Theatre, Essex (May 2015).¹ The letter is from Amza, who travels across timespace; here Amza is a working mother who reads the letter as if to her young daughter in front of the audience. It is intended as part of an assemblage of other feminist memories to provoke new imaginaries of the past into the future.²

Amza enters wearing a Wonder Woman apron that protects her smart clothes for her paid work. A slide image appears behind her of a handwritten letter.

Amza: (reading then speaking)

To My Dearest Daughter

At seven you tell me *you* and all girls and boys can *do* and *be* anything you want. And it will be the same when you are big and I am small. You tell me this with certainty and a sense of righteous indignation that I

should even ask. And, yet, all the research says by 18 the majority of young women no longer think they can be Prime-minister, an astrophysicist or simply be the glory that is themselves.

The slide changes to one of a seven-year-old girl in a firefighter's helmet, her face is not visible.

At the moment you are extraordinary. You wake up fully charged at 6.00 a.m. and by breakfast you have been a writer, a dog and a scientist; you have built a rocket in the living room and flown to the distant reaches of the universe, while writing a volume of poetry and discovering the cure for cancer on your return. There is nothing to stop you.

And, yet, this is what I know for sure: that in ten years' time the world's wealth will still mostly belong to a minority of men. That violence against women will still be rife. That mass rape will continue to be at the heart of genocide and war. That more will be spent globally on military weapons and armies than all the money spent on health and education and refugees put together. And, I know for sure that young women like you in wealthy countries like this will spend around ten hours a day looking at screens—big, small, mobile and the mini wrist embedded screen to come—all of which will annihilate you every day with their absence of women, and their depiction of women as sex objects in various forms. (This is why we need a digital garden of phenomenal people who are women.)

I also know my daughter that your body will be a site of battle. There will be a public struggle over what you can and should wear.

Amza removes her Wonder Woman apron.

You will wear too little, or too much; your body will be too thin or too fat; your hair will be too long or too short. (The genitals of other girls will be mutilated.)

And, while I don't know if by 2025 there will be a contraceptive pill for men, I know that getting pregnant, or, indeed, not getting pregnant, will be your fault. You will get pregnant too young, or too old. You will go back to work too soon, or, too late. And I know then that you will work seventeen times harder in whatever job you do to get on, but, you will be the first to be fired. I know that you will then begin to feel tired and wonder if all this is just you. And, I know, at first you may deny such gender inequality as something from the past, until you realise you are not alone

in what you feel, and you discover and reclaim, yet again, the stories and lives of women who tell you that you are not the first and that this struggle has a history and memories to inspire you lasting thousands of years.

And while I don't know what you as a young feminist in 2025 will believe is important, I would like to imagine that you will want a world where the Law on Historic Sexual Abuse that your mother's generation fought for, really has made a difference and girls and boys grow up without being sexually abused; a world where rapists receive twenty or thirty years' group therapy in a secure environment.

The slide changes to show an art installation of a small child's desk arranged with a doll's cot at the side

I imagine that you will want a world where half of all professors are women in all universities—whether in science, medicine or the arts—and that is normal; a world where parents, male or female can and do take parental leave for at least a year and where both men and women and employers support paid work part-time for parents to be with their children, if they choose.

You, I would imagine, will also want a world where all girls can have a free education without intimidation; a world where the banks are half-owned by women and all the world's parliaments and boardrooms are half-filled with women. I would imagine that you would want healthy food and clean accessible water for all. I don't know but I would think you would want to see more equal shares of land, money, pensions, property and housing. I would imagine that you would want a world in which safe childbirth—in a place and manner of your choosing—is normal.

But, perhaps, you will want more: perhaps *you* will dance in front of drones campaigning for the entire demilitarisation of the planet; *you* will do a mass women's burrow to draw attention to the hidden rare earth mines essential for our digital gadgets that are part of the rape and pollution of our planet; perhaps, *you* will berate *me* for excluding the rights of non-human persons, the wisdom of dolphins and the voices of 800-year-old sentient oak trees. Perhaps you will join with indigenous Australians and call for the reburial of the uranium stolen from the land of the Rainbow Dragon Serpent to fill the bellies of nuclear weapons. Perhaps you will call for an end to cloning, to the end of the server factories; perhaps *you* are part of a DIY culture making the largest quilt in the world, whilst sending personal postcards and handwritten letters as your own rebellion against what you see as the tyranny of the digital.

Yet, I would also hope, my dearest daughter, that you will roundly reject (for a time) what you inherit from your mother and make your own path, with as much energy, optimism and rightful indignation at seventeen and seventy as you have at the age of seven. Let this be so not just for you but for all the world's seven-year-old girls.

Your loving mother

Amza

Amza sings a verse from Building Bridges and then teaches this to the audience who stand up and sing it together.

Building Bridges

Building Bridges Between Our Divisions

I reach out for you won't you reach out for me

With all of our voices and all of our visions

Sisters we can make such a sweet harmony.

(Greenham Common Women's Peace Camp, Traditional)

Lights down. Amza exits. Another woman enters with another (future) memory of a phenomenal person.

NOTES

1. A video of the letter read by the performer Nic Green in Stockton in 2015 is here. <http://www.phenomenalpeople.org.uk/live-event/clips/> with a further profile here <http://www.phenomenalpeople.org.uk/live-event/profiles/>.

There is also a reading of the letter as part of Anna Reading's Inaugural Professorial Lecture at Kings College available here <http://www.kcl.ac.uk/artshums/ahri/eventrecords/2015-2016/festival/weds21/reading.aspx>.

It is on YouTube. <https://www.youtube.com/watch?v=U2yaO1ZK9q8>.

2. The letter was also performed as part of the Ethics of Storytelling Conference at Tartu, Finland in June 2015. It is free to be used by women and men around the world with the author's permission.

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