

5

Remembering and Recovering Shanghai: Seven Jewish Families [Re]-connect in Cyberspace

Andrew Jakubowicz

Remembering Roy Rosenzweig, 1950–2007

How we remember and give meaning to the past are creative processes; we take fragments and try to knit them together into something approaching a logical flow. In personal terms, memory is always a reconstruction from the myriad moments of experience, forced by psychological dynamics into some form of narrative. History as a social process tries to stand back from the personal, to make sense of it against a broader fabric. It may include the personal stories of participants, but it will always be set in the political and social time in which it is articulated. History is therefore both a social science, in terms of methodological approaches, and a humanities discipline, in terms of its synthesis of emotional, aesthetic and intellectual responses. How individuals remember events will inevitably be more partial yet more intense than a more overarching account of the events, so that capturing individual memory into the form of digital capsules will in some senses sit against attempts to build digital historical narratives – although perhaps the possibilities of digital history can draw audiences closer to comprehending the tensions between the historian and the participant's interpretations of events than earlier more linear accounts.

This chapter uses a historical moment – the presence of diasporic Jewry in Shanghai during the 1940s – to address three related questions. How do we interpret this episode, using what frames of reference and in the face of what contemporary pressures? How can we communicate now (in the light of these pressures) the experience of people who lived in this period through the use of current digital technologies?

What might we draw from contemporary creativity to suggest how digital historical sociology might be enhanced in the future? How can the historical sociologist offer insights into how we think about both the sociology of the processes of memory in society, and the making of histories using the forms of digital technologies?

Historical sociology offers a cross-over approach to understanding digital memory and history. It is distinguished from the often posited a-historicity of sociology and a-theoretical narratives of historical scholarship, through an investigation of 'the mutual interaction of past and present, events and processes, acting and structuration' (Smith 1991, p. 3). In studying digital memory, historical sociology foregrounds present accounts of the past, in order to ensure that audiences are aware of the conditional nature of the stories presented, and the role of the story-tellers – be they participants or analysts – in the telling. Digital technology enhances the opportunity to present parallel and perhaps countervailing accounts of events, to allow the audience to test the propositions of both participants and analysts – and to move towards their own synthesis and reflection.

Shanghai lends itself to the development of historical methods and explanations that encompass diversity, multiple systems of often-competing meanings and a vividness of place and human life (Diglio, 2006). The advent of digital web-based technologies triggered my interest, as someone with a long interest in the use of audiovisual media in engaged social science practice. As a historical sociologist, I was interested in how the methodologies of sociology and history might be brought together in the production of web-based projects, so that the potential of new multimedia-generated data could be widely infused in scholarly publishing and be disseminated more widely to those outside the academy.

Three questions guide the structure of the chapter. First, I examine how the use of online memory forms enable particular innovations in relation to online research and scholarship, with specific reference to Shanghai and its Jewish histories. Second, I examine how this is articulated through the creation and realisation of the webproject 'The Menorah of Fang Bang Lu' (Jakubowicz and Pentes, 2002). Finally, I ask what lessons can be learnt from that project and what they suggest in terms of the significance of the digital form for doing memory work that involves interactive digital research and publishing (Jakubowicz, 2007). Insights from this analysis then provide a pathway into the wider questions raised elsewhere in the book about the forms of digital memory and their relation to historical 'truths' sought by historians and sociologists.

The memory battles of the everyday

With the advent of the digital era in 'memory repositories' (museums, libraries, archives, galleries etc.) (Heery and Anderson, 2005) there has been a growing interest in the intended and unintended transformations wrought on the stuff of history by the technological engagements forced upon it. As a historical sociologist I enjoyed the potential offered in the multiple narratives found through the interaction between biography and history. Yet, linear narratives such as those required by academic publishing conventions in analogue publishing technologies (papers, chapters and books) seemed to freeze the lives of my respondents into singular frames, demanding either multiple reiterations to draw out the implications of research findings, or a carving away of many important issues in the name of a simplified (although not necessarily simple) story line. When we seek to explore thematic approaches we lose the rich integrity of the individual life through time; if we seek to recount biography we lose valuable and illuminating thematic extrapolations in the separate narratives of individual life-worlds. The attraction of interactive digital forms is that they enable the multiple processes of accessing information to run in parallel, to expose the rich quality of deep exploration and to open to audiences a freedom of action to test their own perceptions against layers of data.

Often digitally preserved data for historical research – ranging from documents to testimonies – have been collected in repositories of one kind or another (often unable to communicate with each other because of different standards and protocols – libraries, museums, archives and web vaults). Memory repositories exist in the here and now. While they seek to recover or preserve what is seen as being from 'the past' (Hunter and Choudury, 2006), they are of course constructed by institutions that are working with contemporary agendas and the local and global political parameters that determine their resources, priorities and practices (Reading, 2003). As the web exudes across the globe and deepens into a multidimensional almost miasmic tangle, strategies to advance these agendas of memory have become more sophisticated (Crane, 2004). In the process of building web narratives, stories are told, and stories are found. These stories have become increasingly potent elements in wider socio-political struggles over legitimacy, authenticity and claims to truth. Many protagonists in these memory wars look for ways to foreground particular perspectives or truth claims, and elbow out their competitors. Arguments over the authentic historical record are particularly volatile in ethno-cultural and religio-political situations,

where 'truth' becomes a contested space. Both revisionist and orthodox interpretations vie for purchase on the mind and intellectual maps that users develop and mobilise.

One of the most obvious examples of this process can be found in Wikipedia, the 'user created' battleground for emergent knowledges. Numerous studies on Wikipedia have shown the trajectories of struggle over meaning and interpretation – and claims about 'facts'. Thus the entry on Islam reveals the aftermath of 9/11 and the push and counter push over the Truth of Muhammad's teachings, and the benign, malign or revolutionary implications of the Koran – to the point where Wikipedia's editors have posted a perhaps overly hopeful warning, 'This page is currently protected from editing until disputes have been resolved.' (<http://en.wikipedia.org/wiki/Islam>). Meanwhile the page on 'Jew' is semi-protected, by the page authors (<http://en.wikipedia.org/wiki/Jew>).

With the advent of Web 2.0, the opportunity for user-created content has dramatically increased. Wikipedia clearly demonstrates this process at work, where its most positive and negative features compete for attention. User-created content brings into stark relief the more general argument about memory being a process of the here and now, in which the past is sequestered into defended packages of claims to truth. Because digital technology in a sense democratises the process of memory-legitimation, or at least reduces to near-zero the costs of entry, it fundamentally transforms the dynamic of testing truth claims and securing overarching narratives against their competitors and critics. None of the battles are ever fully won or lost, as one of the characteristics of the web remains its scattered residue of dead stars. The functioning of the major search engines, especially the optimisation-sensitive Google, places a premium on how web developers design their sites and tag their content. Google places great store on the 'quality' hierarchy it produces through searches, using selection algorithms that privilege sites likely to possess higher qualities – as qualified by government, education or research criteria – as against individual or idiosyncratic sites. However the commercial 'push' on Google also means that sponsored links, while identified as such, will still appear high on a search and be given equal screen status or presence.

While accuracy is clearly a web-development goal, there are many situations where widely divergent points of view coexist, and the most effective website will secure the bulk of the audience. When many searches typically return hundreds of thousands of hits, gaining a position on page one is very useful and potentially financially important.

A Google search for 'Shanghai Jew' returns some 1,960,000 hits, the first page of which carries a Google message:

If you recently used Google to search for the word 'Jew,' you may have seen results that were very disturbing. We assure you that the views expressed by the sites in your results are not in any way endorsed by Google. We'd like to explain why you're seeing these results when you conduct this search.

A site's ranking in Google's search results relies heavily on computer algorithms using thousands of factors to calculate a page's relevance to a given query. Sometimes subtleties of language cause anomalies to appear that cannot be predicted. A search for 'Jew' brings up one such unexpected result. (<http://www.google.com/explanation.html>)

The disagreements and hostilities associated with the discussion of Jews sets a political context for any projects on the web that explore issues of Judaism and the Jewish people. Geo-political and historic tensions lie more or less silently behind such discussions and are of course exacerbated in the contemporary climate of apprehension about the future of the Middle East.

The nature(s) of interactive narrative

Digital technologies promise a number of avenues to build the quality of research findings, and to enable audiences/users to take greater control of their own learning/exploration (Woodbury, Docherty and Szeto, 2004). The interactive quality of the web environment has been said to offer an immersive experience, where the individual discovers pathways that expose the difficult questions and the extraordinary circumstances that typify reality (AEHRN – Australian e-Humanities Research Network, 2004). Rather than laying out an unencumbered narrative, web projects can demand that users find the clues and cues to drill down into the site, and make non-linear connections that open up awareness of issues not foreseen by the site developer.

In web research/documentary sites carrying data that can be explored by users, the data can be arranged and accessed in many different forms. A recent USHMM project on survivors of the Holocaust (http://www.ushmm.org/museum/exhibit/online/life_after_holocaust/exhibition/) uses a simple six-by-six matrix of people and themes to structure the data, most of which is based on audio-recorded interviews. Each interview is essentially cut up into six segments built around key questions – about

the events in their lives, how they told their children, what life was like in New York after surviving the camps, their role as memorialists and telling the story to others. The questions are available as themes, with each of the six interviewees listed – thus enabling biography and thematic narratives based on connected oral histories to be accessed.

However, the interactive form of the site, designed using Flash animation, constrains the user to move through the lives or the themes – to move between these streams one has to return to the navigation page and enter the alternate stream. It feels therefore more like a predetermined set of pathways, and searching for particular information is not possible. It is thus a museum site that has been curated; it does not allow independent research other than by listening and taking notes.

But discovery on the web can be enhanced through a different appreciation of the audience – viewing them as researchers undertaking their own voyage, not to be instructed or entertained, but encouraged to immerse themselves in the complexities, the minutiae and the awesome realities of the history and memory of another time and place, and thereby bring intellect and emotion together.

Story-telling on the web is of course much more creative and varied than has been suggested here. It cannot avoid the assumptions and orientations of its authors, but it can seek to minimise that pressure by ensuring multiple voices are reported and given the space they need to advance their own realities.

Shanghai Jews and the web

Shanghai Jewry offers itself as a particularly apposite topic, in that it allows for a consideration of many issues. These include but are hardly limited to global geo-politics, national histories, imperialism and the carve-up of China, ethnicity and religion, economic history, the Holocaust, anti-Semitism and philo-Semitism, alternative modernities, oral history and cultural representations on the web: a matrix emerges that links globalisation to culture, economy, religion and place. The Jewish communities of Shanghai were from every land of the diaspora – Middle Eastern Jews from Mesopotamia and Central Asia who arrived in the wake of British victory in the Opium Wars of the 1840s to establish trading and property companies (about 1000 by 1940), Russian Empire Jews (refugees began to arrive well before the Russian Revolution of 1917) coming in a second move from Harbin in Manchuria after the Japanese invasion of the early 1930s and creation of Manchukuo (about 5000 by 1940), and then the refugee Jews from Germany/Austria in 1938–9 (more than

20000) and Poland in 1941 (about 1000), who could not get away from Japan before Pearl Harbor). By early 1942 when the Japanese took over effective control of Shanghai, there were somewhere between 25 and 30000 Jewish residents – about ten per cent of the non-Chinese population, and about one per cent of the overflowing city's total population – only the 'allied' Jews were interned with other the 'enemy' nationals. In 1943 after pressure from the Nazis, the refugees from Germany and Austria were rounded up along with the 1000 or so Poles (a mix of rabbis and religious students, business people and left-wing Bundist artists and writers) and moved into a section of Shanghai that became known as 'the Ghetto' (though it was not designed as a preliminary stage to extermination as the European ghettos were).

Such a research matrix immediately calls for an innovative process to enable audiences/students/scholars/users (the very term is contested) to bring their intellectual and creative engagement to the sites of emergent histories. Not surprisingly, there are numerous attempts to use web technologies to explore the Shanghai Jewish story. Igud Yotzei Sin (IYS <http://www.jewsofchina.org>), the Israeli-based organisation of Jews from China, lists more than thirty websites on its own links page, ranging from the geo-strategic policy documents of the Jewish People Policy Planning Institute (reporting on the project 'Enhancing the Standing of the Jewish people in Emerging Superpowers without Biblical Tradition', <http://jpppi.org.il>) to real-world and online museums such as Beth Hatefutsoth (<http://www.bh.org.il>) and the Babylonian Jewry Heritage Center (<http://www.babylonjewry.org.il>).

Then there are the 'community' sites, such as Rickshaw (<http://www.rickshaw.org>), which is run by ex-Shanghaianders (non-Chinese – Chinese are known as Shanghainese), and the IYS site with its own stories and links. Academic sites include the Sino-Judaic Institute in California, established in 1985 and now a major supporter of Chinese scholarship on Jews and Judaism (<http://sino-judaic.org>) and Vera Schwarcz's 'Bridge across Broken Time' (<http://www.between2walls.com/>), specifically dealing with a comparison of Jewish and Chinese cultural memory. Within China a number of Jewish sites about Shanghai advance specific agendas – from the omnipresent Lubavitcher Chabad houses (now in major cities throughout China) (<http://www.chinajewish.org/>) to the 'Shanghai Stones' project site run by Dvir Bar Gal, an Israeli who discovered a number of remnant Jewish gravestones (http://www.shanghaijewishmemorial.com/index_1.htm).

The most dramatic and well-resourced of the Shanghai Jewish sites has been created by the Holocaust Memorial Museum in Washington,

a major US public institution of memory. Arising from an exhibition held at the Museum in 2000, the 'Flight and Rescue' site created in 2006 brings together state-of-the-art technology, especially Flash animation, with a simple narrative about mainly Polish Jews and a underlying set of additional resources and links into the USHMM database of images, texts and audiovisual material (http://www.ushmm.org/museum/exhibit/online/flight_rescue/index.php). The history is divided into four segments – the Nazi and Soviet invasion of Poland, the Lithuania experience and the issuing there of some 2000 transit visas for Japan, the short Japanese sojourn in Kobe, and then the Shanghai exile period of 1941–5. The narrative is essentially institutional, with emphasis on the role of US and international Jewish organisations in supporting the refugees, leavened by a series of personal stories, many from interviews of survivors commissioned by the museum. The presentation uses visual memorabilia from the refugees – passports, visas, letters, official documents, photographs, label-covered suitcases and similar triggers to the imagination.

The underlying argument of the website reflects the redemptive role that Jewish histories conventionally assign to memories of Shanghai. This is also exemplified in the many films that have been made since 1990 of the refugee experiences – among them *Escape to the Rising Sun*, 1990, *Exile Shanghai*, 1997, *The Port of Last Resort: Zuflucht in Shanghai*, 1998, *Refuge Shanghai*, 1997, *Place to Save your Life: the Shanghai Jews*, 1992 and *Shanghai Ghetto*, 2002. In these films, usually structured around the narrative of a small group of refugees – sometimes German and Austrian, sometimes Polish, sometimes both – the broad narrative is played out in a sequential chronology.

In the conventional narrative of the events, the Jews grow increasingly apprehensive as Nazism intensifies its hold – then they escape, through luck, perseverance, familial networks or the irony of the times. The Germans/Austrians take Italian ships to Shanghai, having been stripped of everything by the Nazis, and often after a stint in Buchenwald or Dachau. This escape route is finally closed in September 1939. Soon after, the Poles flee to the East to escape the invasion, then they are caught in a pincer movement by the Soviets, and so are squeezed north to Vilna and then through Lithuania. In Lithuania, those who survive are saved by 'two angels' as the USHMM site describes them, consuls Zwartendijk of The Netherlands and Sugihara of Japan, who issue the 'visas for life'. After trials and tribulations those who remain in Japan are sent to Shanghai in late 1941, and are caught there when the war in the Pacific begins at Pearl Harbor in December. By 1943 they have been moved into a ghetto area in Hongkew (Ristaino, 1990). Most survive the

war there, despite typhus plagues and American bombing, only to find that their families in Europe have been destroyed. In Shanghai, though, they have experienced no anti-Semitism from the Chinese and only random brutality from their Japanese captors.

In both time-based media forms and in websites then, the Shanghai Jewish story is presented as a small beacon of light in the howling darkness of the Holocaust. The version of the story of the events has come to have a special place in Jewish contemporary narratives of intercultural communion (Finnane, 1999 and James, 1994). It has been commemorated by the Chinese (the heart of the Hongkew ghetto area has been designated one of Shanghai's twelve preservation zones), and has been argued over by competing Jewish organisations (Jakubowicz, 2008). Many dozens of books recall the many dimensions of the experience, from elaborate biography to personal and familial memoir (Heppner, 1993; Krasno, 1992; Reinisch, 1984; Rubin, 1993; and Wakeman and Yeh, 1992). Since 1948 dozens of exhibitions have documented the many perspectives, from North America through Europe to Australia, while museums have special collections in New York, Washington, Berlin, Melbourne and Sydney.

In the next part of the chapter I discuss a project that has sought to use the possibilities offered by digital media forms to render the memory of the Shanghai Jews in more complex ways. Through the form of the on-line interactive documentary or webumentary we have sought to articulate a responsive analysis of individual lives caught up in huge events, while systematically seeking to comprehend the effect of these events on wider social groups and the political structures that constrain them.

The Menorah project

Fang Bang Lu (street) snakes its way through the middle of the old Chinese city of Shanghai towards the temple of the city, by the side of the Ming Dynasty Yu Yuen Gardens. Close to the gate at its northern end on Ren Min Lu (People's Street), stands a squat concrete building, a market in antiques, bric a brac and real and recreated residua of the Mao era. One October morning in 2000 my partner and I were digging through the piles of stuff on the tables upstairs; poking through a mish-mash of brassware was a menorah, its Star of David visible in the dusty light. I pulled it out and discovered that its base held a clock-work music box in a hand-made shell. The tune it played was somehow Jewish and European, but disjointed (because as we later discovered many of the tines of the music box fork were broken).

Menorah safely in bag, we returned to our task of the day, to discover where exactly in the war-time designated area of Hongkew, across Suzhou Creek from the venerable buildings of the Bund, my parents and family had spent their sojourn during the Japanese occupation. Within minutes that afternoon we found the alleyway and the building – due to be demolished soon for the new Hongkou Metro station. I captured it on film, including the scattered remnants of a Chinese Monopoly board and cards in its deserted attic. Two weeks later the building was gone – six months later the alley and street had disappeared, razed into nothingness. The doorknob to my parents' apartment rests on a shelf in Coogee, Australia. And the project the Menorah of Fang Bang Lu was born.

The Menorah as an object has its own quasi-magic existence. The Shanghai halo casts multiple shadows. The Menorah's music box was manufactured in Switzerland probably in the early twentieth century. Contacting the electronic and engineering company that in 2000 carried its maker's name produced no result – there is no corporate memory of its earlier incarnation as a music-box manufacturer. Four years later I was at MIT and was caught up in a passing conversation with a colleague of a colleague – Tod Machover, an expert as it turned out on musical machines. I asked Tod about music boxes – about which he knew little except that north of Boston in Wiscasset Maine he had just visited a store that advertised it repaired them. I tracked down the store ('The Musical Wonder House') and its owner, Danilo Konvalinka, an elderly Austrian from Salzburg; by phone we organised for a repair, and a month later the refurbished box arrived. Now the tune was clear, the Hebrew Chanuka melody 'Ma'or Tsur'. So what was a music box, made in Europe, playing a Hebrew melody, doing in the reworked base of a brass menorah in a Chinese junk shop in AD 2000, long after the European Jews of Shanghai had departed? A trail began to open up....

Earlier on, the Sydney Jewish Museum had embarked on a major exhibition on the Jews of China, focusing on Shanghai as a crossroads on many familial and communal trajectories. As part of the exhibition team I had been researching the stories of many other families who had ended their global wanderings in Sydney. Seven families stood out – they covered the range of groups that had found a place in Shanghai, they had artefacts and memorabilia, and they were good interview subjects on camera. Throughout 2000 and 2001 the research and documentation continued; the menorah sat as an iconic prod. By mid-2001 it had become the central motif for a website to accompany the exhibition – the site to be called 'The Menorah of Fang Bang Lu', with each of its seven branches carrying the story of one family.¹

The decision to undertake the research as an integrated academic/museum/digital exercise required a very systematic methodology. The forms of publication and the experiences to which audiences would be exposed necessitated visualising some of the outcomes from an early stage. My research team began with a normal literature review, identifying the sorts of narratives that had been offered, looking for insights on which we could build, and uncovering points of contradiction, disagreement or dissent. The museum curatorial staff had already begun to interview people who they knew, and had commissioned a filmmaker to prepare an interview-based short documentary. The exhibition design team members were developing their first design concepts, in which Shanghai was to be 'recreated' complete with a café, a small cinema and cases of memorabilia, connected by large scrolls containing short narratives of the communities and the history. In one alcove audiences would be able to interact with a prototype of the website.

The process of selecting the families for interview was important. As a historical sociologist I wanted to portray the political and social structures that both constrained and offered opportunity to the families. I wanted to enable audiences to drill down as much as they might want to carry out their own research or extend our analyses. Much of the analysis we wanted to present would be contained in the comparative, thematic access offered by digital media, where users could work through themes and understand the mix of personal and political factors that affected the very different family stories. So we needed interviewees who were self-aware, who had tried themselves to make some sense of their own stories – we wanted to portray not only what they had experienced but also what narrative they had created to retain and contain their memories.

The themes were composed in our preparatory research, and refined through the interviews. Each family would be placed in the context of their own pasts – the societies and localities they or their forebears had travelled to reach Shanghai. These 'threads' give information about social class, occupation and family structure; they suggest influences, limitations and resources that people brought to bear on the situations they would encounter. The other themes track how they got to Shanghai, their social, economic, communal and political relationships (with other Jewish communities, Europeans, Chinese and Japanese and Americans) and their strategies for survival until they reached Australia – at various points from 1946 to 1975. Each element is documented through interview, family photographs, documents or other images sourced from the Internet or research data bases.

The Menorah project is created

The various elements came together in the project – Shanghai and its Jewish communities, Shanghai as a fascinating and intellectually complex cosmopolitan space, Shanghai as the site of many alternative modernities, the limitations of the museum exhibition in a digital age, and my own family story. A key contributor to the project's realisation was its designer Tatiana Pentes, someone who both understood Shanghai in her own way, and was a flexible and sensitive digital multimedia artist. Pentes' role is crucial in understanding the creative engagement that a digital history can evoke for its audience. While traditional analogue publishing (i.e., the book or the film) employ designers and artists to draw together content and convey the context and content through the style the object is given, digital publishing arguably requires something both more and different from a designer. The designer/researcher/producer triad becomes very intense, as the likely audience relationship to the project (such as multiple returns, 'dipping', need for clear navigational aids in deep drilling into the site) calls for attractive, meaningful and comprehensible access and content; every mark on the screen has to be considered, its meanings calculated, its positioning finalised and its relationship to all other elements clarified.

Pentes' own work began with a complex and creative interpretation of Shanghai as a story-ground. Her first exposition of Shanghai, the interactive CDROM *Strange Cities* (2000) (<http://www.strangecities.net>; <http://strangecities.blogspot.com>) builds on the life and work of her grandfather, Sergei Ermolaeff (Serge Ermoll), a Russian big-band leader in China and composer of the 1930s song 'Strange Cities', which serves as both title and soundtrack. The motif of a box of relics is used to 'open' the door into 1930s Shanghai and the permeable but dangerous borders between the International and French concessions, and the Chinese City. A Chinese night-club singer wends her way through the space, revealing the subtle divisions and hierarchies of race and gender. Writing of the city Pentes notes:

At the level of representation, Shanghai was an appropriated 'exotic' location, an orientalist back-drop, and the subject of a plethora of Western novels, literary and cinematic creations. The allure of Shanghai as a mysterious cultural locale wove its way into American Hollywood cinema and popular song as an orientalist fantasy and landscape upon which the West imagination could play out illusions. (<http://strangecities.blogspot.com>)

Pentes went on to produce 'Black Box', a more developed multimedia concept that explores memory and culture, again through the body and life of a dancer (<http://epress.lib.uts.edu.au/dspace/handle/2100/357>) where she evoked amongst others, a Chinese box, (<http://www.strangecities.net/chinesebox.html>) while painting a digital picture of documented memory.

The webumentary form of the Menorah site Pentes and I designed and created (<http://transforming.cultures.uts.edu.au/ShanghaiSite>) opens with two long scrolls, containing the intertwining emblems of four families – from Russia, Austria, Poland and Mesopotamia. 'Hard copy' versions of the scrolls hung in the real world exhibition at the Sydney Jewish Museum in 2001. Click 'enter' and the menorah appears, rotating slowly with the melody of the broken tines playing; this transmutes into a hagadda (Passover prayer) portion, sung by Shanghai-born Nissim Cunio. It is drawn from the Sephardic/Babylonian rite, and phrased to a tune written for it in Shanghai in the 1930s (it is very close to the melody of 'Keep the Home Fires Burning' and not surprisingly it turns out, as it was composed by a British Jew, a World War One veteran, and a teacher at the Shanghai Jewish School). The splash page is then revealed. A Chinese screen in a room – the screen belongs to one of the families and its carved edges are Photoshopped into a frame for the whole page. The room is a virtual composite, constructed from fragments of the Cathay Hotel and the floor of Cathay Mansions, both of which were once owned by the Sassoon family. On the rear wall is a historic black-and-white photo of the Bund – roll it over it and it becomes the Bund in 2001 alive with lights and red flags. The title hangs in the air – roll over and we see the menorah and read its story, shadowed by a Nazi swastika that appears momentarily on the wall; we also find out where and what is Fang Bang Lu. On another wall hang old maps, one delineating the extent of Japanese control of China in 1944 (Chi'en, 1944), the other marking out the voyage in 1938 of Australian journalist Frank Clune, who describes Shanghai as 'a bomby sort of place': he also describes Inner Mongolia as the place 'where the income tax is collected with machine guns' (Clune, 1941).

Along the side wall a chest opens on the catalogue of the 2001 Sydney Jewish Museum exhibition *Crossroads: Shanghai and the Jews of China*. A chest near the back wall supports a circular mirror, in which we can see the Bund reflected through the curtains of a Cathay Hotel window. However, it is only when the small menorah on the chest comes alight under our rolling cursor that we gain entry to the site proper.

'The Menorah of Fang Bang Lu' floats in a room, now clearly looking out over the Bund with the Angel celebrating the Allied victory of 1918

in dark relief. A painting of an eastern European shtetl (a Yiddish word for small town or village) street by artist Naomi Ullman opens to a gallery of Holocaust landscapes, scenes from stories of escape, each stamped with the Swastika used by the Reich post office on the postcards sent from prisoners in the ghettos of Poland to their children escaping to the Rising Sun. A trunk opens to the 'back-stories' of research, production, resource links and the authors'/creators' biographies.

The menorah's branches now glow individually as they introduce us to the seven families – the violinist Rosner and his wife and daughter from Linz, the elaborate Sephardic family of Moalem from Mesopotamia, the elegant chess-player and his poet wife Krouk from Harbin, the Viennese chemist Gunsberger and his daughter, the mathematicians Szekeres from Budapest, the university graduate Kofman family from Harbin via France and the USA, and the middleclass Polish family from Lodz Jakubowicz/Weyland.

The webumentary site structure, a seven-by-seven matrix, prompted by the candelabra arms, contains the seven families and seven themes. The family stories are based on videotaped interviews (not yet fully installed on the site), often running well over an hour, with family survivors, and with photographs, documents and artefacts that illustrate their lives. These interviews provided the skeleton for the narrative that is introduced through the themes – threads on the family background, the journey to Shanghai, economic and community life in the city, relations with the Chinese and the Japanese and the exit from Shanghai.

Pentes designed the form of each family page so that it has an individual iconic centrepiece and the themes are accessed through smaller iconic images from the family or archival sources. Thus my own family page uses my grandmother's silver ring – showing the twin dragons of double happiness – that she bought in Shanghai. The Szekeres' page shows the young couple in 1939, fragments of their embroidered photo album, and their son at war's end on Garden Bridge, with dim Chinese graffiti heralding the (Communist) third way chalked on its beam, overlaid on a photo of Garden Bridge, Soochow (Suzhou) Creek and Broadway Mansions. The Krouks' page has a photo of them in the gardens of Hangzhou at the end of the war set within the silver frame of a wedding photograph. They are free at last from the Japanese and therefore able to move about until that freedom ends when the Communists take Shanghai in 1949.

On each page there is a small chrysanthemum flower – a symbol of China. This connects to the same theme in all the other families, whose names appear under rollover. Each page also carries five images – these

are programmed in Fireworks to open a mid-page larger image with descriptive text. Next to each image, three or four words link to a text window that provides more detail for the narrative. Some of the texts are quite short, while others (such as those for Gunsberger) are taken from interviews or autobiography.

Each family page follows the same basic concept but has been designed to foreground the individuality of the family's experience, while illuminating broader historical and cultural events. In some, red-framed images indicate more elaborate windows – detailed maps, Flash movies and other documents. In some cases pages have been designed to operate as scrolls, based on sketches by refugee artists of Shanghai street life. In other cases excerpts are included of rare archival documents – including recently discovered pages of an (incomplete) Japanese census conducted in the ghetto area in 1944 (Armbrüster, Kohlstruck, and Muhlberger, 2000). Gunsberger and Rosner are on the pages, Jakubowicz/Weyland are not. A video of the two Weyland children, by then in their seventies in 1999, records them singing a Jewish Polish cabaret song they remember from their teens, written and first performed in Vilnius in 1940.

The site thus presents both personal stories (biography) and thematic accounts (history). The user can track across the themes and people, weaving a unique catalogue of the trajectories that brought the Jewish people of Shanghai into the same space. It also provides material that other researchers can use for their own projects, and includes links to other sources, and an extensive bibliography.

E-research and publication: the next challenge

The emergence of Web 2.0 interactivity has transformed expectations, and begun to render archaic even recently developed sites constituted through earlier technologies. With the advent of XML, and the systematic working through of universal codes for identifying data (e.g. Dublin core <http://dublincore.org>), the web is becoming a more dynamic and distributed system. However the experience of the Menorah project demonstrates one remaining critical hurdle – the silos that separate e-research from e-publishing as well as the difficulties of integrating how we think critically about digital media forms and memory with what we then do with them to articulate memories of the past.

While rich multimedia data has become standard within the humanities and social sciences, and is the very stuff of online repositories and museums, it has yet to penetrate to world of academic publishing to any serious extent. Most e-journals pride themselves on the transparency

of the review process, yet they cannot easily accommodate multimedia (except as short inserts or clumsy web-links). They use hypertext to speed up reference finding, but it rarely goes further than that. While innovative on-line journals such as First Monday (<http://firstmonday.org>) are now including podcasts of talks about issues – online audio lectures – they are still unable or unwilling to do more than drop in illustrative images (e.g. http://www.firstmonday.org/issues/issue11_12/boyd/).

Even the very innovative American Historical Review, under the influence of the late Roy Rosenzweig of the Center for History and New Media at George Mason University in the USA (<http://chnm.gmu.edu/staff.php?id=17>), was unable to crack this problem. It was most prominently displayed in the decision to publish a traditional text article on the Valley of the Shadow Project from the University of Virginia, rather than find a way to publish the project or elements of it as an interactive article (Thomas and Ayers, 2003). There seemed to be two problems – there was the technical aspect of how the journal's servers would support the file sizes required, and how could it guarantee the links would be perpetual; and then there was the problem of assessing the quality of the 'paper', as there were no accepted criteria for refereeing a web-based project (and few qualified referees).

Meanwhile the whole issue of Open Source has overtaken earlier discussions. The development of D-Space at MIT (<http://dspace.org>), soon to become one of the standard formats for academic repositories, was occurring independently of other initiatives, such as the interactive XML-based Metamedia archive at the same university (<http://metamedia.mit.edu>). While D-Space can 'manage and preserve all types of digital content – text, images, moving images, mpegs, datasets' (http://www.dspace.org/index.php?option=com_content&task=view&id=189&Itemid=120) it cannot easily be incorporated into a published outcome. Metamedia on the other hand is designed to allow archival publishing into more traditional 'academic' formats.

A project like 'Menorah' is very labour intensive, very craft-like and cannot be published easily in ways that secure scholarly recognition. One journal that has invested energy in addressing the problem of gaining scholarly recognition for digital media publishing, *Vectors: Journal of Culture and Technology in a Dynamic Vernacular* does so through a series of 'wraps' – authors' statements, designers' statements and editors' statements. Then each project/article is blogged, so that conversations can grow and envelope the piece. However, the editors, including Tara McPherson, have moved beyond this – using keywords, they encourage users/readers to explore the relationship between articles in an

extraordinary 'Vector space' (<http://www.vectorsjournal.net/index.php?page=5%7C1&pageLast=4%7C1>), where graphic imagery flows keywords between articles, showing how basic concepts can migrate across barriers.

Moreover the Vector projects (they are produced at the rate of one or two editions of the journal per year) encompass a broad range of humanities publishing, many re-purposed for the journal format. However they all require quite advanced web design skills and point to the emerging partnerships between scholars and designers in the form of new writing/production teams. These projects are truly the realm of artists and scholars whose emphases are as much on the creative expression of insight, as on the quality and depth of that insight.

Conclusion

The debates about the value of digital communication in relation to both the activity of research and how we think about digital media forms in relation to memory, and the dissemination of research results, point then to two challenges, and to extraordinary innovation should these challenges be met. The challenges lie in expanding the legitimacy of innovative research and publishing, while ensuring a more stable and accessible research and publishing environment.

The bridging of the silos of research and publishing has become eminently more feasible with the emergence of Web 2.0 (and the promise of its successors down the track). However as this chapter has shown, take-up of such innovation is hampered by the limited capacity in the academic world to assess the quality and impact of such scholarship and publishing. While information and knowledge management researchers focus on the socio-technical issues associated with building and securing multimedia repositories, researchers who use rich digital media apply it primarily in teaching, develop craft-like individualised projects or essentially use it behind linear textual meta-narratives delivered in traditional formats to traditional audiences.

The value of an integrated interactive research/publishing memory project can in part be illuminated by the frustrations experienced by audiences with projects that are not fully integrated, or not usefully interactive for the audiences that they attract. 'The menorah of Fang Bang Lu' was designed for an ICT-literate audience, already socialised, confident and competent in discovering its clues to navigation and exploration. However, it may be exactly these qualities that more neophyte users would find forbidding and older 'pre-digital' communities

would find impossible to comprehend and therefore use with any comfort. On the other hand, once users have 'cracked' the mode of use, they may be able to experience far more freedom and opportunity for creative imagining in relation to the research materials, than might be available in a more linearly programmed.

We are then in a digital moment (or maybe sequences of moments) in which we can perceive outcomes we may want to achieve, without yet feeling confident we have the methods and practices necessarily to normalise them to fully exploit the potential of digital forms of scholarly storytelling. Thinking about digital media forms in relation to the study of memory suggests how we might more effectively convey that intricate interplay of the individual and the social, the present and the past. When Dennis Smith wrote of the potential of historical sociology, he was doing so within an intellectual ferment over the tension between universal globalising theory, and specific, individual events and experiences; he hoped that it might 'offer a route to increased understanding and more effective action through rational, critical and imaginative inquiry' (1991, p. 184). The capacity to put together through digital media forms what has been fragmented by history may provide a final metaphor as to the synthesis of the imaginary and the real we now need to perform.

Note

1. Even though the music box played a Chanukah tune, the candelabra was not the eight-branched chanukiah of the holy days, but the more pedestrian menorah of the weekly synagogue service.

References

- AEHRN – Australian e-Humanities Research Network (2004) *Leveraging digital scholarship in the humanities*, <http://www.ehum.edu.au/arc-report/context.html>. Accessed 15 November 2006.
- Armbrüster, G., Kohlstruck, M., and Muhlberger, S. (2000) *Exil Shanghai 1938–1947; Jüdisches Leben in der Emigration: Mit Erstveröffentlichung von 14800 Eintragungen der Ausländerliste der japanischen Fremdenpolizei auf CD-ROM*. (Berlin: Hentrich and Hentrich).
- Chi'en, H. (1944) *China. But Not Cathay* (London: The Pilot Press).
- Clune, F. (1941) *Sky High to Shanghai* (Sydney: Angus and Robertson).
- Crane, G. (2004) Georeferencing in Historical Collections [Electronic Version]. *D-Lib Magazine*, 10. <http://www.dlib.org/dlib/may04/crane/05crane.html>. Accessed 14 November 2006.
- Diglio, S. (2006) Urban Development and Historic Heritage Protection in Shanghai. *Web Journal on Cultural Patrimony*, 1.

- Finnane, A. (1999) *Far From Where? Jewish Journeys from Shanghai to Australia* (Melbourne: Melbourne University Press).
- Heery, R. and Anderson, S. (2005) Digital Repositories Review [Electronic Version] <http://ahds.ac.uk/preservation/digital-repositories-review-2005.rtf>. Accessed 12 January 2006.
- Heppner, E. (1993) *Shanghai Refuge: A Memoir of the World War II Jewish Ghetto* (Lincoln: University of Nebraska Press).
- Hunter, J. and Choudury, S. (2006) 'Panic: an integrated approach to the preservation of composite digital objects using semantic web services', *International Journal on Digital Libraries*, 6: 2, 174–83.
- Jakubowicz, A. (2007) Bridging the Mire between E-Research and E-Publishing for Multimedia Digital Scholarship in the Humanities and Social Sciences: An Australian Case Study [Electronic Version], *Webology*, 4, <http://www.webology.ir/2007/v4n1/a38.html>. Accessed 4 May 2007.
- Jakubowicz, A. (2008) 'Cosmopolitanism with Roots: the Jewish Presence in Shanghai before the Communist Revolution and as brand in the new metropolis', in E. Kofman, S. Donald and C. Kevin (eds) *Branding Cities: Cosmopolitanism, Parochialism, and Social Change* (New York: Routledge).
- Jakubowicz, A. and Pentes, T. (2002) The Menorah of Fang Bang Lu, <http://transforming.cultures.uts.edu.au/ShanghaiSite> (Sydney: Transforming Cultures Research Centre).
- James, R. (1994) *Escape to Shanghai: A Jewish Community in China* (New York: Free Press).
- Krasno, R. (1992) *Strangers Always: A Jewish Family in Wartime Shanghai* (Berkeley: Pacific View Press).
- Reading, A. (2003) 'Digital interactivity in public memory institutions: the uses of new technologies in Holocaust museums', *Media, Culture & Society*, 25: 1, 67–85.
- Reinisch, G. (1984) *Shanghai Haven* (Cheltenham: Standard Commercial Printers).
- Ristaino, M. R. (1990) White Russian and Jewish Refugees in Shanghai, 1920–44, as recorded in the Shanghai Municipal Police Files, National Archives, Washington, D.C. *Republican China*, 16: 1, 51–72.
- Rubin, E. (1993) *Ghetto Shanghai* (New York: Shengold Publishers).
- Smith, D. (1991) *The Rise of Historical Sociology* (Philadelphia: Temple University Press).
- Thomas, W. and Ayers, E. (2003) The Differences Slavery Made: A Close Analysis of Two American Communities [Electronic Version]. *American Historical Review*, December, <http://www.vcdh.virginia.edu/AHR/>. Accessed 26 November 2006.
- Wakeman, F. and Yeh, W.-h. (eds) (1992) *Shanghai Sojourners* (Berkeley: University of California Press).
- Woodbury, R., Docherty, M., and Szeto, H. (2004) The design and implementation of a repository for digital cultural artifacts [Electronic Version]. *ITCon 9: special issue Digital media libraries*, pp. 143–59, <http://www.itcon.org/2004/10>. Accessed 26 November 2006.

6 Archiving the Gaze: Relation-Images, Adaptation, and Digital Mnemotechnologies

Bruno Lessard

Let us begin by remembering two efforts at imagining archiving and storing practices that are strikingly different yet equally pertinent to the study of digital mnemotechnologies.¹

The year is 1945. An American engineer named Vannevar Bush dreams of a technological device that would allow the quasi-infinite storage of all kinds of information. Imagining what today we would describe as a cross between the library and the computer, Bush will name his device 'Memex,' 'which is a sort of mechanized private file and library... A memex is a device in which an individual stores all his books, records, and communications, and which is mechanized so that it may be consulted with exceeding speed and flexibility' (Bush, 2003, p. 45). Akin to the internet project called Xanadu and Jorge Luis Borges' dream of an infinite library in the short story 'La biblioteca de Babel', Bush's Memex pointed to impending relations between machines and the preservation of material traces.

Here is the second effort, which takes place fifty years after Bush first published his pioneering thoughts. In his remarkable cinematic meditation on the uncertainty of national identity and post-exilic memory, *Ulysses' Gaze* (1995), Theo Angelopoulos not only inquires into the difficulties of ascertaining a sense of self in the ravaged Balkans but also subtly archives the memory of early Greek cinema by filmic means. Indeed, embedded in the exiled protagonist's journey is the task of locating the supposedly lost reels of the first Greek shorts. Angelopoulos' film archives early Greek cinema in a very unusual manner: inscribed in another analogue film, whose absent centre addresses precisely the impossibility of recapturing an original gaze, are the first gazes caught on film.

digital memory? How are digital technologies changing what we remember and how? Records of the past used to be expensive, bulky and difficult to access. However, digital media technologies provide cheap data storage and easy data retrieval, with mobile networks enabling unprecedented global accessibility and participation in the creation of digital memories. *Save As... Digital Memories* brings together leading international scholars to address online memorials, blogging, mobile phones, social networks, websites and the digital archive. They focus on topical subjects such as 'war on terror', cyberpunk, the Holocaust, digital remixing and the digital museum. Trans-disciplinary and original, the book will appeal to anyone interested in how digital media technologies shape human memory. Providing an accessible and bold introduction to the subject of digital memory, each chapter shows how digital technologies are changing memory discourses, practices and forms, as well as the way we conceptualise memory itself.

Joanne Garde-Hansen is Senior Lecturer in Media, Communication and Culture at the University of Gloucestershire, UK. She has published extensively on archives, digital memory, women and ageing. She is director of the Centre for Media, Memory and Community.

Andrew Hoskins is Associate Professor of Sociology at the University of Warwick, UK, and director of the Warwick Centre for Memory Studies (memorystudies.net). He is the author of *Televising War: From Vietnam to Iraq* (2004) and co-author of *Television and Terror* (Palgrave Macmillan, 2007). He is also founding editor-in-chief of the journal *Media Studies*.

Anna Reading is Reader in Cultural Memory at London South Bank University, UK. She is the author of numerous books and articles on memory and digital memory including *The Social Inheritance of the Past: Gender, Culture and Memory* (Palgrave Macmillan, 2002). She is also a joint editor of the journal *Media, Culture and Society*.

palgrave
macmillan

Save As... Digital Memories
Edited by Joanne Garde-Hansen, Andrew Hoskins and Anna Reading

UTS LIBRARY

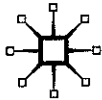


3 2007 00548060 0

Edited by
Joanne Garde-Hansen
Andrew Hoskins
Anna Reading

Save As...

Digital
Memories



Introduction, selection and editorial matter © Joanne Garde-Hansen, Andrew Hoskins and Anna Reading 2009
Individual chapters © contributors 2009

All rights reserved. No reproduction, copy or transmission of this publication may be made without written permission.

No portion of this publication may be reproduced, copied or transmitted save with written permission or in accordance with the provisions of the Copyright, Designs and Patents Act 1988, or under the terms of any licence permitting limited copying issued by the Copyright Licensing Agency, Saffron House, 6-10 Kirby Street, London EC1N 8TS.

Any person who does any unauthorized act in relation to this publication may be liable to criminal prosecution and civil claims for damages.

The authors have asserted their rights to be identified as the authors of this work in accordance with the Copyright, Designs and Patents Act 1988.

First published 2009 by
PALGRAVE MACMILLAN

Palgrave Macmillan in the UK is an imprint of Macmillan Publishers Limited, registered in England, company number 785998, of Houndmills, Basingstoke, Hampshire RG21 6XS.

Palgrave Macmillan in the US is a division of St Martin's Press LLC, 175 Fifth Avenue, New York, NY 10010.

Palgrave Macmillan is the global academic imprint of the above companies and has companies and representatives throughout the world.

Palgrave® and Macmillan® are registered trademarks in the United States, the United Kingdom, Europe and other countries.

ISBN-13: 978-0-230-54252-5 hardback
ISBN-10: 0-230-54252-2 hardback

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources. Logging, pulping and manufacturing processes are expected to conform to the environmental regulations of the country of origin.

A catalogue record for this book is available from the British Library.

A catalog record for this book is available from the Library of Congress.

10 9 8 7 6 5 4 3 2 1
18 17 16 15 14 13 12 11 10 09

Printed and bound in Great Britain by
CPI Antony Rowe, Chippenham and Eastbourne



Contents

<i>Notes on Contributors</i>	vii
Introduction	1
Part I Digital Memory Discourses	
1 The Mediatisation of Memory <i>Andrew Hoskins</i>	27
2 Saving Lives: Digital Biography and Life Writing <i>Paul Longley Arthur</i>	44
3 Rewind, Remix, Rewrite: Digital and Virtual Memory in Cyberpunk Cinema <i>Sidney Eve Matrix</i>	60
Part II Digital Memory Forms	
4 Memobilia: The Mobile Phone and the Emergence of Wearable Memories <i>Anna Reading</i>	81
5 Remembering and Recovering Shanghai: Seven Jewish Families [Re]-connect in Cyberspace <i>Andrew Jakubowicz</i>	96
6 Archiving the Gaze: Relation-Images, Adaptation, and Digital Mnemotechnologies <i>Bruno Lessard</i>	115
Part III Digital Memory Practices	
7 MyMemories?: Personal Digital Archive Fever and Facebook <i>Joanne Garde-Hansen</i>	135
8 The Online Brazilian Museu da Pessoa <i>Margaret Anne Clarke</i>	151

9	Digital Storytelling and the Performance of Memory <i>Jenny Kidd</i>	167
10	Remixing Memory in Digital Media <i>Shaun Wilson</i>	184
	<i>Selected Bibliography</i>	198
	<i>Index</i>	201

Notes on Contributors

Paul Longley Arthur is a Research Fellow at the Australia Research Institute, Curtin University of Technology, Western Australia, and an Adjunct Research Fellow of the Research School of Humanities, Australian National University. His research explores how new technologies are transforming the way history is recorded and studied. He has published widely on digital humanities topics and also on Australian cultural history.

Margaret Anne Clarke graduated from the University of Liverpool with a PhD in twentieth-century Brazilian literature. Her research interests include: contemporary Brazilian digital cultures and writing and the use of computer and multimedia applications for language learning. She has published articles in all these areas. She is presently senior lecturer in Portuguese at the University of Portsmouth, UK.

Joanne Garde-Hansen is senior lecturer of media, communication and culture at the University of Gloucestershire, UK. She has published research on archives, digital memory, women and ageing. She is co-investigator of the AHRC funded Women, Ageing and Media research network. Her current projects include the production of community memory in Gloucestershire: Cheltenham's Jewish Community and Dennis Potter's extras.

Andrew Hoskins is Associate Professor of Sociology at the University of Warwick and Director of the Warwick Centre for Memory Studies (www.memorystudies.net). He is founding editor-in-chief of the international and interdisciplinary SAGE journal of *Memory Studies* (mss.sagepub.com). He is author of *Televising War: From Vietnam to Iraq* (Continuum, 2004) and co-author of *Television and Terror* (Palgrave Macmillan, 2007).

Andrew Jakubowicz is Professor of Sociology and a director of the Centre for Cosmopolitan Civil Societies at the University of Technology, Sydney, Australia. He directs the web project 'Making Multicultural Australia' and his research on Shanghai has been published on the web as 'The Menorah of Fang Bang Lu'.

Jenny Kidd is currently a Lecturer and Researcher in Cultural Policy and Management at City University, London, UK. Previous to this she

completed a PhD at Cardiff University, looking at the BBC's Digital Storytelling initiative Capture Wales. Her research interests include audiences and interactivity, cultural consumption and various forms of digital communication. She has published across a number of fields including Media, Performance studies and Museology.

Bruno Lessard is a SSHRC Postdoctoral Fellow in the Department of Film and in the Communication and Culture programme at York University in Toronto, Canada. He has published articles and book chapters on intermedia theory, digital arts and contemporary cinema.

Sidney Eve Matrix is Queen's National Scholar and Assistant Professor of Film and Media at Queen's University, Canada. Her recent publications include *Cyberpop: Digital Lifestyles and Commodity Culture* (Routledge, 2006) and a series of articles on science fiction films and new media technologies.

Anna Reading is Reader in Cultural Studies at London South Bank University, UK. She is the author of numerous books and articles on memory and digital memory: including *The Social Inheritance of the Holocaust: Gender, Culture and Memory* (Palgrave Macmillan, 2002). She is a joint editor of the international journal *Media, Culture and Society*.

Shaun Wilson is an artist, curator and academic working with themes of memory, place and scale through video and digital philosophy. He is currently a lecture in video and media theory in the School of Creative Media at RMIT University, Australia.

Introduction

This book is about how we embody, create and are emplaced within digital memories. As our lives have become increasingly digitised, so digital memories become us. We upload personal images to websites to share with family and friends. With our mobile camera phones we capture the ordinary and mundane as well as the traumatic and newsworthy, slipping in our pocket an archive of texts, photos and contacts. We post online conversations and thoughts that become memories on social network sites; we visit online museums and pray at sites of digital condolence. Our movements, actions and preferences in space-time are routinely recorded and traceable via Google, mobile networks, surveillance cameras, and data stored by transport systems, at work-places and borders. Even our clothes are 'intelligently' tagged.

Unlike in previous eras, where keeping the past was an expensive business with access provided often for only an elite, digital media technologies provide cheap data storage, ease in terms of the searching and retrieval of data – with digital and mobile networks providing unprecedented global accessibility – and participation in the creation of memories. In these ways, digital technologies might seem to be changing memory by reversing the age-old default of human societies, which is to forget (Mayer-Schonberger, 2007). The digital suggests that we may need to rethink how we conceive of memory; that we are changing what we consider to be the past; that the act of recall, of recollection and of remembering is changing in itself.

New (and old) thinking on memory and on media

Yet, what is memory? At an individual level memory seems to be that which we carry about with us in our heads, (or do we mean our brains

or indeed our bodies?), which comes back and forth into our consciousness. Past moments, places, people, events, encounters and actions all seem to swirl around and contribute to our self-identity – how we see ourselves – sometimes available to us in an ordered sense of biography stretching over chronological time, but more often haphazard and disordered. Is memory then the ‘stuff’ somehow stored in our minds and accumulated over years, or is it the act and time of recollection itself, so when we routinely speak of memory we actually mean *remembering* – a function, a process, an act? In this way memory can occur only in the present and ever-new moments in which we retrieve aspects of our past. So, a commonsensical notion of a retrieval of memory from some kind of ‘store’ is misleading, as whenever we re-cover some aspect of the past, we do so in a later, temporal position – a new context. Moreover, every time we *represent* an aspect of the past to ourselves we inevitably change it.

Another, perhaps more useful, way of characterising memory is to consider that every time it is remade in the present it becomes ‘active’. Frederic Bartlett (1932), for example, who had a significant influence on the psychology of memory,¹ claimed that the key process of remembering involves the introduction of the past into the present to produce a ‘reactivated’ site of consciousness: ‘Remembering is not the re-excitation of innumerable fixed, lifeless and fragmentary traces. It is an imaginative reconstruction, or construction, built out of the relation of our attitude towards a whole active mass of organised past reactions or experience’ (Bartlett, 1932, p. 213). It is not a question of the past itself as an entity as such, but, ‘our attitude towards’ it and our ‘organisation’ of past experiences. So, crucially, individual memory is dynamic, imaginative and directed in and from the present.

Unsurprisingly, psychologists have constructed a variety of complex models of individual memory (Parkin, 1993, pp. 3–25). Yet, memories also require distinct *social* frameworks: patterned ways of framing the flow of remembered actions, images, sounds, smells, sensations and impressions (Boden and Hoskins, 1995). Without social frameworks (Halbwachs, 1980) memories would flicker like dreams without anchors in the theatre of consciousness, in the paramount reality of everyday life (Schutz, 1962). Indeed, it is social memory studies, according to Jeffrey Olick (2008), that have undergone ‘metastatic growth’, whilst there appears to be an emergent multidisciplinary engagement being brought to bear to an understanding of remembering and forgetting in the contemporary era.²

This engagement includes the development of an array of new public and academic taxonomies and typologies of memory, in an attempt to differentiate or compare the realms of the personal and the public, the everyday and the cultural: to identify and comprehend their intersections and to explore memory’s functions and dysfunctions. For example, Jan Assman (1995, pp. 128–129) contrasts the dynamics of ‘communicative memory’ or ‘everyday memory’ with the fixity of ‘cultural memory’; others focus on an ‘experiential’ form of engagement with a past that reaches beyond generational memories (this is particularly so with Holocaust and other conflict memories: see Hirsch, 1997, Landsberg, 2004, and Weissman, 2005, on ‘post’, ‘prosthetic’ and ‘fantasy’ memories, respectively).

Whether explicit or implicit in the accounting of the nature, forms and consequences of contemporary memory, it is media and their associated technologies that are being increasingly acknowledged as influential in shaping the emergent ‘memory boom’ (Huysen, 2003). In terms of the recent past, one can identify the late 1970s as marking the beginning of a ‘memory turn’ initially in the West, and, specifically, in relation to the premiere screening of the Holocaust television mini-series on NBC in 1978 (see Shandler, 1999). Moreover, since its widespread introduction, on the one hand, television has seemingly tightened its grip on defining and redefining collective memories for entire generations, especially in relation to events seen as momentous or historic, and for its relentless commemorative ‘news’ and documentary programming. See, for example, the growing literature on so-called ‘flashbulb memory’ (Brown and Kulik, 1977; Neisser, 1982/2000; Pennebaker et al., 1997). On the other hand, television as a shaper of remembering and forgetting has to some extent existed below the radar of memory studies, as many accounts ‘assume television to be culture’s nemesis, rather than a creator of culture – the medium seems inimical to the very notion of memory’ (Shandler, 1999, p. 29).

However, many of the models of memory (above) take the media of what is increasingly being defined as the ‘broadcast era’ as their principal context of study. That is to say, rapid developments in digital media have shaped a new or ‘digital media ecology’ (which we expand on below). Thus, the existing paradigm of the study of broadcast media and their associated traditions, theories and methods, is quickly becoming inadequate for understanding the profound impact of the supreme accessibility, transferability and circulation of digital content: on how individuals, groups and societies come to remember and forget.

Indeed, some of these very frames of reference of the study of memory, including 'the social', appear increasingly inadequate, or at least constituted in different ways, as William Merrin (2008) argues:

In the broadcast-era 'the social' represented the abstract social body – the public, the population, the citizenry, the masses – with the media's role being to incarnate the social bond and bring social and political developments to the individual. In contrast the 'social' in social networking derives from 'social life'. The top-down provision of information is replaced by peer-produced relationships with news of the world being replaced by news of the self.

Our citing of Merrin is not just intended to introduce the idea of a shifting mediatised social scape or, rather, digital media ecology. His critique of the field of 'Media Studies' (as it is termed in the UK at least) and his call for a new approach of 'Media Studies 2.0' highlights the difficulties posed for even the academic field devoted to the study of media. It appears increasingly inadequate in identifying and explaining the transformations in and of media, such is the pace and extent of change. Indeed, even to begin a critical exposition on these transformations one needs to go significantly beyond the traditional media and communication studies tools, texts and traditions, including to the writers who are currently taking the lead in their engagement with our digital world (such as journalists, marketing consultants and IT specialists).

What and where are 'digital memories'?

Online mementos, photographs taken with digital cameras or camera phones, memorial web pages, digital shrines, text messages, digital archives (institutional and personal), online museums, online condolence message boards, virtual candles, souvenirs and memorabilia traded on eBay, social networking and alumni websites, digital television news broadcasts of major events, broadcaster websites of archival material, blogs, digital storytelling, passwords, computer games based on past wars, fan sites and digital scrapbooks. All of these are examples of new media at the beginning of the 21st century and all are fulfilling an age-old function: to 'control time, recollection, grief and trauma' (Broderick and Gibson, 2005, p. 207) but how are they making these old moves in new ways? Digital memories deal with the past's relationship to the present through digital media technology and they are engaged in a series of age-old deferrals – the deferral of death (Becker, 1973), the deferral of

endings (Derrida, 1994), and the deferral of history (Baudrillard, 1994; Fukuyama, 1992). It is the instantaneous and flexible production of digital memories that puts history on hold, at least for the moment in which the digital memory is created.

Yet, there is a new deferral that digital memories expose. This has become the self-fulfilling prophecy of information overload, speed and connectivity. As James Gleick astutely points out: 'We complain about our oversupply of information. We treasure it nonetheless. We aren't shutting down our email addresses. On the contrary, we're buying pocket computers and cellular modems and mobile phones with tiny message screens to make sure we can log in from the beaches and mountaintops' (Gleick, 1999, pp. 90–91). Keeping track, recording, retrieving, stockpiling, archiving, backing-up and saving are deferring one of our greatest fears of this century: information loss. The speed at which we live and work in digital culture means that we are producing our memories on machines that do not seem substantial enough and lasting: 'We now stockpile our heritage on millions of hard drives and optical disks, and these flaky objects, too, promise to go obsolete on a rapid schedule' (Gleick, 1999, p. 250). How many of us feel the heavy weight of the memories captured and consumed within the pile of VHS tapes and the VCR gathering dust in the loft? As Blu-ray appears to win the DVD format war, how many consumers are lumbered with HD DVD, the Betamax of 2008? In these contexts, memory means 'backward compatibility'. Amnesia and the fading of collective memory are the symptoms of a society moving too fast Gleick (1999, p. 251) suggests, but this is also squared against the multitude of archivists saving memories we may wish to forget, from the drunken karaoke video we post on YouTube to the flaming missives we tap out in discussion forums. A longing for memories, for capturing, storing, retrieving and ordering them: this is what digital memory culture is all about.

However, for many, one of the consequences of the documentation, storage and re-assemblage of our past(s), of and through the mass media and their associated technologies, is that they 'condemn' human memory. So, the media of 'artificial memory' are said to diminish our capacity to remember in unique and imaginative ways (Rose, 1992, p. 61) and for Nora the accumulations of mass archives produce a 'terrorism of historicized memory' (1989, p. 14). Furthermore, memory itself may be 'mediatized' (Jameson, 1999) in the sense that memory processes are increasingly embedded in a self-reflexive and self-accumulative 'media logic'. Although some of the mediatised memory records of the post-broadcast era are in some ways easy to delete or lose, the emergent

domains of social networking have ushered in new hybrid public-personal digitised memory traces that although open to immediate and continual reshaping are also resistant to total erasure by even, and especially, the authors of these digital archives of self. 'Social network memory' is thus a new hybrid form of public and private memory. The instantaneity and temporality of social network environments disguise their potential as mediated ghosts to haunt participants far beyond the life-stage of their online social networking.

Having said this, in times of trauma, crisis, grief and mourning digital media can be seen to contribute to a 'comfort culture' (Sturken, 2007, p. 6), giving immediate access to sites of memory, national identity, community and consumerism secured by purchasing a World Trade Center memento on eBay for example. If, as Sturken argues of the American public, citizens could be viewed as 'tourists of history' who experience the past 'through consumerism, media images, souvenirs, popular culture, and museum and architectural reenactments' (Sturken, 2007, p. 9) then surely digital memories would only fuel the connection between memory and consumerism? Everyday life's penetration by the continual documenting of the instant, portable and accessible digital media has produced new and more frequent intersections with the institutional and not least in terms of often free if not cheap content for the news media.

If not offering the latest mobile phone images of the 2005 London bombings, digital media is recording the minutiae of family life to be shared online as personal memories streamed through computerised networks, thus contributing to an upsurge in memory-making from below and revealing the current obsession with capturing and editing as much of our lives as possible. As a subject of Nicola Green's (2006) ethnographic research into teenagers' use of mobile phone text messaging revealed:

Text messages are something you store...they're kind of memories you want to keep. It would be really cool to have like a memory card for each person so I can put all their text messages in there so I can retrieve them one at a time when I want them. ([L respondent] Green, 2006, p. 256)

Although not dealing with digital memory culture, Green's research produces a respondent who conflates the digital terminology of the 'memory card' with the desire to memorialise and immortalise the affective and personal moments shared with friends through networked

mobile phones. This desire to make immediately accessible those personal memories, to order and archive them (consider *Blade Runner*, 1982) implies that these technologies are really shifting the power base of social history and taking it away from the traditional and institutional producers of media.

But what is the value of memory in the seeming flux and satiation of digital content in the contemporary era? 'Archiving of the online world is not centralized. The network distributes memory. [...] Who, if anyone, will decide which parts of our culture are worth preserving for the hypothetical archaeologists of the future?' asks Gleick (1999, p. 252). Moreover, the presentist function of digital media raises new and interesting challenges for thinking through how these new tools (re)present and (re)construct the past, our pasts. More specifically we could say that '[t]he past and the present do not denote two successive moments, but two elements which coexist: One is the present, which does not cease to pass, and the other is the past, which does not cease to be put through which all presents pass' (Grosz, 1999, p. 59). Therefore, amnesia may not be the problem at all in a culture where past and present are remembered along the side of one another. As the Internet 'turns a large fraction of humanity into a sort of giant organism – an intermittently connected information gathering creature' we find that this 'new being just can't throw anything away. It is obsessive. It has forgotten that some baggage is better left behind' (Gleick, 1999, p. 254).

This book proposes a concept of digital memory as one that rethinks time as linear and moves toward a concept of time and memory as spatial and involving organic participation with inorganic structures. Grosz reads in Darwin, Nietzsche, Heidegger, Merleau-Ponty and Foucault a theorisation of time and the passage of time not as a modality that is determined as lineage, development, accumulation and causality but as the eruption of events that are unpredictable and involve upheaval and chaos. This conception of time underpins digital memories and their production from the bottom up, which is 'to acknowledge the capacity of any future eruption, any event, any reading, to rewrite, resignify, reframe the present, to accept the role that the accidental, chance, or the undetermined plays in the unfolding of time' (Grosz, 1999, p. 18).

Digital memory is, then, an enactment and engagement with difference and the use of digital media to remember is not about taking a passive approach to the passage of time, however fast it appears to be. Rather, it is the active, subjective, organic, emotional, virtual and uncertain production of the past and present at the same time. What digital media brings to memory – and to thinking about and representing the

past – is the possibility of simultaneity, indeterminacy and ‘the continual eruption of the new’ (Grosz, 1999, p. 28) into a landscape of old ways of doing things. In this introduction we outline our concept of digital memory in terms of three key tensions: the relationship between history and memory, the relationship between organic and inorganic and the relationship between ‘old’ and ‘new’ technologies.

Digital memory: the end of history – the beginning of memory

Unlike history, which has traditionally been promoted and defended by the written word, memory has projected itself in multiple media and formats over the last few centuries: as script, audio, images, artefacts, sculpture, artwork and architecture to name but a few. This is not to say that history is not currently embracing and engaging with other ways of distributing itself: film, television and websites for example, but rather that history is delivering itself through technologies that befit memory-making. The shift away from the dominance of the logos toward more flexible and participatory systems of representation is one that lends itself particularly well to theories of memory within a culture of convergence of digital media. In this culture, ‘convergence represents a paradigm shift across multiple media channels, toward the increased interdependence of communications systems, toward multiple ways of accessing media content, and toward more complex relations between top-down corporate media and bottom-up participatory culture’ (Jenkins, 2006, p. 243). The question in all this is how far any culture can continue to invest in old-style ideologies that generate myths of history (national, religious and political) that are meant to galvanise people and are communicated through traditional mass media or dislodge such myths by participating in and producing their own multi-media memories that are personal and collectively shared. Does this new convergence culture of digital media mark the end of history and the beginning of memory?

Like traditional mass media, history shares a one-to-many approach in disseminating its messages. It is authoritative and institutionalised. Challenges from grassroots histories, history from below, have to some extent allowed for revisions of history that take into account the voices and experiences of others. Memory takes another approach. It is more peer-to-peer (to use digital media terminology) in its dissemination. Families and friends form close networks and share memories, both personal and collective. Likewise, it is participatory, as mourners visit

graves, monuments and memorials. It is accessible not elitist: the language of memory is personal as well as public, affective, and driven by anyone and everyone. Unlike history, memory relies upon personal and shared knowledge for its production (Halbwachs, 1980) and as such accords with Jenkins’ redefinition of a new ‘collective intelligence’ (Lévy, 1997) at work in digital media cultures:

Knowledge communities form around mutual intellectual interests; their members work together to forge new knowledge often in realms where no traditional expertise exists; the pursuit of and assessment of knowledge is at once communal and adversarial. (Jenkins, 2006, p. 20)

It seems that memory-making, storage, archiving and sharing fit well with what Castells terms the ‘hypersociability’ of networked individualism that is ‘enhancing the capacity of individuals to rebuild structures of sociability [and one could add, structures of history-making] from the bottom up’ (2001, p. 132). Mastering the skills to participate in this historical reprocessing is crucial to thinking about how we engage with and utilise digital media. Digital memory practices should not be consigned to an elite few who are fully immersed in the intricacies of what the technologies can do such that their versions of personal and collective memories come to dominate our understandings of social, cultural and political histories. As Jenkins has argued, ‘a changed sense of community, a greater sense of participation, less dependence on official expertise and a greater trust in collaborative problem solving’ (Jenkins, 2006, p. 209) mean that the new communications landscape expects ordinary citizens to master digital media skills quickly in order to navigate through it.

Perhaps, though, Jenkins is a little too optimistic about the non-elitist community building, knowledge communities or collective intelligence that he sees emerging out of convergence culture. Memory is not homogenous and it does not always promote homogenous communities. Quite the opposite, the convergence of old and new media has provided a multimedia landscape of differentiation, randomness, spontaneity and variation. This seems to be more a Darwinian ecology of digital memory than a rational, deterministic and logical community based upon shared meanings. Nardi and O’Day (1999) define information ecologies as suggesting diversity, continual evolution, change and differentiation. The new digital media ecologies that Cottle and Rai (2007) have identified within the context of 24/7 news reporting

also dispute common myths of homogeneity by revealing 'a dynamic, rapidly expanding and increasingly differentiated ecology' (Cottle and Rai, 2007, p. 72). As noted earlier, the traditional models of 'mass media' so entrenched in the broadcast era appear inadequate as foundations for understanding the flux of digital content, the blurring of the previously distinct categories and experiences of 'producers' and 'consumers', and the meshing of the public and the private. It is a landscape of personal, local, 'regional, transnational and global complexity here that demands increased recognition and theorization' (Cottle and Rai, 2007, p. 53). If history can be seen as the 'rough and tumble analogue narrative of bodies, classes, and power' that 'gives way to a new digital beginning' then surely memory can be said to be replacing it (Mosco, 2005, p. 82)?

However, one cannot expect history-making to end just because new media forms are better suited to projecting the personal and individual from the grassroots up. This buys into the myth of freedom from history that cyberculture promoted in the media theory of thinkers such as McLuhan (1964), Negroponte (1995) and Tapscott (1998) and that continues to be voiced by theorists such as Timothy Allen Jackson: 'New media is a strong force in the ecology of ideas and the formation of personal and collective identities' (Jackson, 2001, p. 352). Yet, this fails to take account of the controlling power of large media conglomerates that produce a great deal of the digital media we consume every-day, and provide and manage many of the very same digital production tools and networks that are seen by some as heralding a loosening of their grip. As Vincent Mosco has argued:

The freedom embodied in liberalism and the equality of participation contained in democracy are seriously jeopardized by a world in which key economic, political, social, and cultural decisions are set by global networks of firms, many of which dwarf in wealth and power most of the world's nations. (Mosco, 2005, pp. 59–60)

In other words, Microsoft, Google and News International do not invest in social networking sites where personal memories are digitised every-day because they want youth to lead the way, transcend race, gender and class and achieve the world harmony the older generations have consistently failed to deliver. Digital memories (their creation, storage, sharing and retrieval) involve a range of vertically and horizontally integrated media corporations who are all converging upon a central myth: 'Be young, be digital, be equal, be free from history' (Mosco, 2005, p. 81). Rather, digital memories are also being produced for deeply historical

(Holocaust), political (Iraq War) and ideological (9/11) reasons as well as created by cool 'kids' for their online alumni pages. Discourses of freedom, community, equality and collective intelligence that underpin convergence culture have to be squarely set against a concept of forgetting that is fundamental to the construction of memory. Such discourses, which Mosco would ascribe as myths, create 'the condition for social amnesia about old politics and older myths' (Mosco, 2005, p. 83) and as such we may not be witnessing the end of history but the recycling of history in the form of digital memories.

Digital memory: inorganic + organic = prosthetic

Human memory is fallible, easily distorted and open to loss and degradation on a social and neurological level. Media have been seen to supplement human memory, adding to and replacing the capacity for humans to remember in the face of their organic limitations. As McLuhan argued (1964), these extensions of man have made possible multiple applications of media, as people have used cameras to extend the eye and computers to extend the brain. The body, the mind and technology are intimately linked. What is Nintendo's Wii *Fit*TM if not a mediated extension of physical movement, and if it were integrated with WiiConnect24 functionality, or even Nintendo Wi-Fi Connection, then the human body's movements would be fully distributed across networks. Digital memories would then have an ontological status, an existence as being and becoming due to their intimate association with the neurological and the combination of organic participation and technological apparatus required to produce them. Media functions as an externalisation of inner processes, sensations, thoughts and memories but it is the sharing of these through digital media that issues forth a new way of thinking about memory. Making memories remotely accessible, producing empathy at a distance, as Alison Landsberg (2004) has argued in relation to traditional media forms, means that they are not only shared but are prosthetic. They become memories that are not built on first-hand experiences but still have powerful emotional effects. Landsberg focuses upon the sharing of memories of trauma, slavery and the Holocaust through television and cinema, but digital media adds a new dimension to prosthetic memory. This is not a viewer but a user, these are not just events separated by time (Holocaust testimonies) but space as well (social networking sites), they are not just from the past (wartime memories) but are continually made present to the audience (9/11 satellite television footage), these are not consumed

memories (cinema audiences of Lanzmann's *Shoah*, 1985) but produced by the audience (9/11 online memorials), and these memories are not simply shared and told (radio histories) but creatively constructed (digital storytelling). They may not even be historically significant memories but they are personally meaningful, and they mingle with the sublime and serious in contradictory and highly differentiated ways in our digital media ecology.

The prosthetic aspects of digital memory are not simply observed by the fact that media's relation to memory is one of the supplement or that the sharing of memories via media produces remembrance at a distance. More deeply, the prosthetics of digital memory raises questions of where we draw the line between the organic and inorganic; what is the ontological status of a digital memory; are these simply recordings, representations or informational or does their ability to integrate human emotion and remembering into the technological matrix suggest something quite different about how media, bodies and minds converge? Crucially, we can see the depth of the prosthetics of digital memory in two crucial ways.

Firstly, as Angel and Gibbs (2006, p. 24) have argued in relation to how the human face is co-opted by television, media are biomediations of the human and are affective. As such, media are not simply cyborgian and continually remediate the human body; that would put the power on the technology's side. In the context of digital media and memory, the human-media interface is invested 'in the body's capacity to supplement technology [and vice versa]' and 'the potential it holds for collaborating with the information presented' (Hansen, 2003, p. 207). If '[m]edia remediate human attention, human affect, and human habit into their flows' (Angel and Gibbs, 2006, p. 27) and the relationship is symbiotic then digital memory is prosthetic in that it is deliberately designed to enlist human emotions and human subjectivity in a much more integrated way. Secondly, in her theorisation of the computer in relation to theories of human evolution, Elizabeth Grosz has posited that in one crucial way computers are already destabilising the boundary between life and non-life. The computer virus, 'a small segment of computer memory', is 'capable of copying its code onto host programs, which, when executed, spread the virus further' (Grosz, 1999, p. 23). Likewise, P. David Marshall has argued that the 'idea of the computer virus has taken on equivalent status to a flu epidemic in terms of warnings, types of inoculation and preventative care and the dire consequences of infection' (Marshall, 2004, p. 45). As such, their ability to self-reproduce and their replication of biological virus behaviour begin

to question the distinction between life and non-life. This convergence of matter (human memory) with information (silicon memory) is crucial here for thinking about the philosophical discourses that underpin a theorisation of digital memory. A concept of digital memory intersects with these same issues. It is not simply a metaphor but a drawing together of the organic and inorganic. When computer viruses infect there is a loss of memory and a digital amnesia that makes digital memory just as fallible and unstable as human memory.

However, digital media are popularly seen not as simple analogue aide-memoires to past events and experiences but as redesigning what can be remembered. There is a distrust of these new memory tools, as if older media such as the photograph were somehow more faithful to the past than a blog (which may remediate old photographs) or a digital image in Photoshop that can be touched up. At least with old media we could keep some distance between human and non-human. However, this fear is based upon a few misunderstandings about the differences between old and new media. The assumptions are that when analogue media is digitised there is a loss of information, an amnesia, that in digital form a media object has a fixed amount of mutable information, and that older media are not interactive, immersive or prosthetic. Yet, Manovich (2001) and Bolter and Grusin's (1999) work has made such distinctions between old and new media untenable. What both old and new media have in common is a desire to 'externalise the mind' and to make what is private (personal memories for example) public (collective memories):

What before had been a mental process, a uniquely individual state, now became part of the public sphere. Unobservable and interior processes and representations were taken out of individual heads and placed outside – as drawings, photographs, and other visual forms. Now they could be discussed in public, employed in teaching and propaganda, standardized, and mass-distributed. What was private became public. What was unique became mass-produced. What was hidden in an individual's mind became shared. (Manovich, 2001, pp. 60–61)

Digital memory: 'old' media – 'new' media

One of the central claims implicit in the book's title is the suggestion that the digital status of memory-making, documenting, archiving and retrieval has elicited a change or shift or brought about a new form

of the relationship between media and memory. The focus of the title upon 'digital' rather than simply media and memory implies newness, difference and uniqueness in some way: marking contemporary memory-making out as in opposition perhaps to analogue. However, if the current theoretical work in digital media has been to focus upon the digital and 'new' media not as radically different from 'old' media either due to remediation (Bolter and Grusin, 2001) or to its sharing of principles with cinema (Manovich, 2001), or as intersecting in creative ways (Jenkins, 2006) then this book needs to tackle just how radically different digitally mediated memories are from analogue-based ones. Is there a continuum between the two and what marks the break?

In defining the relationship between 'old' and 'new' media, Bolter and Grusin's (1999) concept of 'remediation' is very useful. It allows us to think about digital media not as a radical break but as a process of reformulating, reformatting, recycling, returning and even remembering other media. 'New digital media are not external agents that come to disrupt an unsuspecting culture. They emerge from within cultural contexts, and they refashion other media, which are embedded in the same or similar contexts' (Bolter and Grusin, 1999, p. 19). Implicit within remediation, which Bolter and Grusin argue is the *raison d'être* of every medium, is always already a concept of memory: the memorialisation of an older medium by digital media. In fact, the ways in which older electronic and print media continually reaffirm their status and heritage in new and immediate ways suggests a resistance to becoming the lost past of media history. But digital media, digitisation of media itself is different and does issue forth a difference in how we might think about the relationship between media and memory.

Manovich (2001) argues that there are five principles that mark the differences between 'old' and 'new' media. Firstly, 'numerical representation', the composition of media objects from digital code, a mathematical product that can be programmable and manipulated. In terms of digital media and memory this means that your old high school photograph, once digitised (converted into binary logic) can have the 'noise' automatically removed by Photoshop. This follows a different logic to the old or modern media, which was mass and standardised in its Industrial Revolution-inspired approach. In this logic, digital memory is embedded in a post-industrial landscape of 'individual customization' (Manovich, 2001, p. 30). Therefore, politically and culturally we can see a creative reinsertion of the personal and mutable into a paradigm of the stable and collective. In practice, your memories and others' memories as captured by media devices can be converged with

other media and customised to fit how you would like your life to be recorded and remembered.

Secondly, 'modularity', is described as the principle whereby media elements remain discreet and independent even when they are assembled into larger-scale objects. The key examples Manovich uses are the Internet, which is completely modular, a movie which may 'consist of hundreds of still images, QuickTime movies, and sounds that are stored separately and loaded at run time' and a Microsoft Office document with an inserted 'object' that 'continues to maintain its independence and can always be edited' (2001, p. 30). It is this independence of storage, separateness of the part from the whole and self-sufficiency of one media element from another, that coupled with numerical coding issues in Manovich's third principle 'automation'. Thus, 'human intentionality can be removed from the creative process' (Manovich, 2001, p. 32) and software programmes can automatically adjust, modify, correct and even create content. For digital memory, modularity and automation present new opportunities for combining old media objects into new configurations in fast and efficient ways that are user-focused. Online museums can draw together numerous different digitised objects (scanned text, clip art, movies, photographs and media clips) that are all separate and editable and consist of smaller independent elements right down 'to the level of the smallest "atoms" – pixels, 3-D points, or text characters' (Manovich, 2001, p. 31).

'Variability' is the fourth principle, in which digital media produces, often automatically, not identical copies but different versions. The principle is dependent upon modularity and automation as defined above and the ramifications are that elements can be assembled and customised 'on demand' (Manovich, 2001, p. 37) in multiple formats. This implies that digital memories are not fixed but liquid, representing functionally the reality of human memory as a constantly mutable experience. While there may be a *master* past event that is remembered, this memory is not documented, archived and retrieved in an analogue way. Identical *copies* of the memory are not generated each time it is produced. Rather, the 'variability' principle of computer culture comes more accurately to describe human culture: the ways in which memory is personally and collectively presented in different *versions* depending on need and context.

The final principle is 'transcoding', the translation of something into another format, where we move away from the cultural coding of media to the computer coding of media. It is this other logic that must be acknowledged: 'Because new media is created on computers,

distributed via computers, and stored and archived on computers, the logic of a computer can be expected to significantly influence the traditional cultural logic of media' and as such 'the computer layer and the cultural layer influence each other' and the 'result of this composite is a new computer culture – a blend of human and computer meanings' (Manovich, 2001, pp. 46–47). This final principle is of significance for thinking through the relationship between digital media and memory, and the digitisation of media objects that have significance for personal and collective memories. What can the computer layer bring to the cultural layer in thinking through the relationship between media and memory? How are human and computer meanings blended in our examples of digital memories?

Clearly, the concept of digital memory is reliant upon the new relationship that has emerged between old and new media, production and consumption, corporate media and user generated content. As Henry Jenkins has argued, this new relationship is symptomatic of 'convergence', in which consumers are encouraged to make their own connections between different kinds of media content (Jenkins, 2006). This is not simply about the convergence of technology but rather the convergence of individuals and cultures:

Convergence occurs within the brains of individual consumers and through their social interactions with others. Each of us constructs our own personal mythology of bits and fragments of information extracted from media flow and transformed into resources through which we make sense of our everyday lives. (Jenkins, 2006, pp. 3–4)

Jenkins argues that convergence culture is primarily occurring in entertainment and popular media spheres, 'but that the skills we acquire through play may have implications for how we learn, work, participate in political process, and connect with other people around the world (Jenkins, 2006, pp. 22–23). Thus, in terms of a concept of digital memory, the convergence of media to represent personal and collective memory is firstly fuelled by developments in popular culture: blogs, Hollywood film and computer and video games, for example. The expansion of convergence culture into more serious and political issues has largely been generated by the principles that underpin new media, which Jenkins defines as 'access, participation, reciprocity and peer-to-peer rather than one-to-many communication' (Jenkins, 2006, p. 208).

Critically, for thinking about how digital media can represent the past, memories and history, we need to acknowledge the political

importance of 'new' media 'because it expands the range of voices that can be heard: though some voices command greater prominence than others, no one voice speaks with unquestioned authority' (Jenkins, 2006, p. 208). Moreover, what digital media brings to this representation of the past is a greater personalisation of events, narratives and testimonies. The emphasis is shifting away from the collective and toward the personal, as Marshall has argued in relation to the proliferation of digital media technologies that allow this shift to occur:

Part of the process of new media cultures is an incredible movement towards the personalization of media so that the collective notion of the audience has less salience. The one-to-one relationship to the cultural form of digital television and more clearly with the internet or electronic games creates a heightened sense of agency in the user. (Marshall, 2004, p. 103)

Most importantly, this does not mean that the collective in terms of conceptualising memory has disappeared, rather, it reappears in a different form:

[S]imultaneous to this growing personalization of media with MP3 players and mobile phones, is a stronger notion of connectivity in new media. [...] this connected 'structure of feeling' is not as massive audiences, but rather as new networked communities that can maintain contact through several methods. (Marshall, 2005, p. 103)

Digital memory discourses, forms and practices

The three tensions that we identify here of the relationship between history and memory, the relationship between the organic and the inorganic and the relationship between 'old' and 'new' technologies are explored in each of the chapters that follow, drawing on different disciplines and giving emphasis to particular sites, contexts and examples of digital memories. The chapters in the book are grouped together into three sections: digital memory discourses, digital memory forms and digital memory practices. In a sense, any kind of division like this, although implying the clear separation of particular elements, is simply an artificial construction and simply one way epistemologically of organising the material in relation to the subject. However, as editors we bring to digital memory and the field of memory studies specific expertise from media and cultural studies, and what we want

to suggest are the ways in which some of the categories often used to analyse media and mediascapes may be useful in relation to thinking about media and memory, and particularly digital memory. Discourses, forms and practices enable us to think across established but increasingly disrupted binaries within memory studies such as the individual and the collective, the virtual and the material and the cultural and the communicative.

Thus, the chapters in Part One address in different ways how memory discourses may be changing with digitisation. Whether a photograph, a video, a text message or an interactive web page, digital memories all share the same essential language: this is the binary code understood primarily only by intelligent machines and a limited number of humans (Hayles, 2006). Examining digital memory through the perspective of memory discourses enables an exploration of the ways in which digital memories through this shared code are merging the personal with the public, as well as creating discourses that are more malleable, alterable and revocable. Underlying contemporary digital memories are liquidities and mobilities that arise from code and in turn are generating new metaphors and discourses for remembering.

The chapters in Part Two then address how digital memories are rearticulating memory forms, requiring us to rethink the conception of media forms itself. By grouping the chapters in terms of digital memory forms we are able to explore the ways in which digitisation is modifying and resulting in new ways in which the past is articulated, some of which appear to be extensions of older media forms whilst others offer new means for recording, recalling and forgetting the past. At the same time, inherent in this section, as with Part One, is the suggestion that the conceptualisation of form, as distinct from digital memory discourses or digital memory practices, is in itself being traversed and disrupted.

In Part Three, the chapters examine the differing ways in which memory practices are changing as a result of mediated memories being created and managed through digital technologies. A more democratised sense of access to memory-making tools, vastly increased memory storage and computer processing power mean that we need to rethink the ways in which 'audiences' now creatively use digital technologies to generate new ways of remembering. We find here that digital memory practices both build on and modify the memory practices associated with 'old' technologies. Consequently, the practices of digital storytelling and creating digital archives can be resistant to the concept of digital 'newness' by invoking nostalgia, reminiscence and community or through using

simple analogue tools. Meanwhile, history from below is now mediated through digital practices such as weblogs, personal journalism, online reunion sites and digital memory mapping, as well as peer-to-peer networks. This has a number of theoretical implications including how we understand the intersection of personal memory practices with more authoritative collective memory practices constructed by memory institutions and organisations including museums and broadcasters.

Although we have grouped the chapters in the book into these three broad sections configured around digital memory discourses, digital memory forms and digital memory practices, it becomes evident from the essays themselves that the very mobilities, convergences, compressions and fluidities suggested by digital media require us to think across and between these categories. Digital media technologies, as we shall see, now point to a much more poly-logical, relational and networked conceptualisation of memory: this is digital memory. Ultimately, the title of this book best serves the purpose of the chapters herein. *Save As...*, with its iconic reference to the computer command we enact every time we name and rename our projects, signals the issues at stake for digital memories: that any medium used to record and archive memory has a redemptive function and that any attempt to save memory always entails loss and forgetting as well as additions and supplements. We save our pasts only *as* something else: something different, something less than, something more than.

Notes

1. The resonance of the work of Bartlett is indicated by the re-issuing of his classic text *Remembering: A Study in Experimental and Social Psychology*, 63 years after its original publication.
2. For example, see the SAGE journal of *Memory Studies* launched in 2008 (<http://mss.sagepub.com> and <http://www.memory-studies.net>).

References

- Angel, Maria and Gibbs, Anna (2006) 'Media, Affect and the Face: Biomediation and the Political Scene,' *Southern Review*, 38: 2, 24–39.
- Assman, Jan (1995) 'Collective Memory and Cultural Identity,' *New German Critique*, 65, 125–133.
- Bartlett, Frederic, C. (1932) *Remembering: A Study in Experimental and Social Psychology* (Cambridge: Cambridge University Press).
- Baudrillard, Jean (1994) *The Illusion of the End* (Palo Alto: Stanford University Press).
- Becker, Ernest (1973) *The Denial of Death* (New York: Simon and Schuster).

- Boden, Deirdre and Hoskins, Andrew (1995) 'Time, Space and Television'. Unpublished Paper Presented at the second *Theory, Culture & Society Conference, Culture and Identity: City, Nation, World*, Berlin, 11 August 1995.
- Bolter, Jay David and Grusin, Richard (2001) *Remediation: Understanding New Media* (Cambridge: MIT Press).
- Broderick, Mick and Gibson, Mark (2005) 'Mourning, Monomyth and Memorabilia' in Dana Heller (ed.) *The Selling of 9/11* (New York: Palgrave Macmillan), pp. 200–220.
- Brown, Roger and Kulik, James (1977) 'Flashbulb Memories', *Cognition*, 5, 73–99.
- Castells, Manuel (2001) *The Internet Galaxy* (Oxford: Oxford University Press).
- Cottle, Simon and Rai, Mugdha (2007) 'Global Mediations: On the Changing Ecology of Satellite Television News', *Global Media and Communication*, 3: 1, 51–78.
- Derrida, Jacques (1994) *Spectres of Marx*, Peggy Kamuf (trans.) (London: Routledge).
- Fukuyama, Francis (1992) *The End of History and the Last Man* (London: Hamish Hamilton).
- Gleick, James (1999) *Faster: The Acceleration of Just About Everything* (London: Little Brown and Company).
- Green, Nicola (2006) 'On the Move: Technology, Mobility, and the Mediation of Social Time and Space', in Robert Hassan and Julian Thomas (eds) *The New Media Theory Reader* (Maidenhead: Open University Press), pp. 249–265.
- Grosz, Elizabeth (1999) *Becomings: Explorations in Time, Memory, and Futures* (Ithaca: Cornell University Press).
- Halbwachs, Maurice [1951] (1980) *The Collective Memory* (New York: Harper and Row).
- Hansen, Mark, B.N. (2003) 'Affect as medium, or "the digital facial image"', *Journal of Visual Culture*, 2: 2, 205–228.
- Hayles, N. Katherine (2006) 'Traumas of Code', *Critical Enquiry*, 33: 36–157.
- Hirsch, Marianne (1997) *Family Frames: Photography, Narrative and Postmemory* (Harvard University Press).
- Huyssen, Andreas (2003) *Present Pasts: Urban Palimpsests and the Politics of Memory* (Palo Alto: Stanford University Press).
- Jackson, Timothy Allen (2001) 'Toward a New Media Aesthetic', in David Trend (ed.) *Reading Digital Culture* (Oxford: Blackwell), pp. 347–353.
- Jameson, Fredric (1991) *Postmodernism, or the Cultural Logic of Late Capitalism* (London: Verso).
- Jenkins, Henry (2006) *Convergence Culture: Where Old and New Media Collide* (New York: New York University Press).
- Landsberg, Alison (2004) *Prosthetic Memory: The Transformation of American Remembrance in the Age of Mass Culture* (Columbia: Columbia University Press).
- Lévy, Pierre (1997) *Collective Intelligence: Mankind's Emerging World in Cyberspace* Robert Bononno (trans.) (Cambridge: Perseus Book).
- Manovich Lev (2001) *The Language of New Media* (Cambridge: MIT Press).
- Marshall, P. David (2004) *New Media Cultures* (London: Arnold).
- Mayer-Schonberger, Victor (2007) 'Useful Void: The Art of forgetting in the Age of Ubiquitous Computing', April. KSG Working paper No. RW-PO7-022, [http://ksgnotes1.harvard.edu/Research/wpaper.nsf/rwp/RWP07-022/\\$File/rwp_07_022_mayer-schoenberger.pdf](http://ksgnotes1.harvard.edu/Research/wpaper.nsf/rwp/RWP07-022/$File/rwp_07_022_mayer-schoenberger.pdf). Accessed 24 September 2008.
- McLuhan, Marshall (1964) *Understanding Media: Extensions of Man* (New York: McGraw-Hill).
- Merrin, William (2008) 'Media Studies 2.0', <http://mediastudies2point0.blogspot.com/>. Accessed 12 June 2008.
- Mosco, Vincent (2004) *The Digital Sublime: Myth, Power and Cyberspace* (Cambridge, MA: MIT Press).
- Nardi, Bonnie and O'Day, Vicki (1999) *Information Ecologies: Using Technology with Heart* (Cambridge, MA: MIT Press).
- Negroponte, Nicholas (1995) *Being Digital* (New York: Knopf).
- Neisser, Ulric (1982/2000) *Memory Observed: Remembering in Natural Contexts* (New York: W.H. Freeman and Company).
- Nora, Pierre (1989) 'Between Memory and History: *Les Lieux de Mémoire*', Marc Roudebush (trans.), *Representations*, 26, 7–25.
- Olick, Jeffrey K. (2008) '"Collective memory": A memoir and prospect', *Memory Studies*, 1: 1, 23–29.
- Parkin, Alan J. (1993) *Memory: Phenomena, Experiment and Theory* (Oxford: Blackwell).
- Pennebaker, James W., Dario Paez and Bernard Rimé (eds) (1997) *Collective Memory of Political Events: Social Psychological Perspectives* (Mahwah: Erlbaum).
- Rose, Steven (1992) *The Making of Memory: From Molecules to Mind* (London: Bantam Books).
- Schutz, Alfred (1962) *Collected Papers 1* (The Hague: Martinus Nijhoff).
- Shandler, Jeffrey (1999) *While America Watches: Televising the Holocaust* (New York: Oxford University Press).
- Sturken, Marita (2007) *Tourists of History: Memory, Kitsch, and Consumerism from Oklahoma City to Ground Zero* (Durham: Duke University Press).
- Tapscott, D. (1998) *Growing Up Digital: The Rise of the Net Generation* (New York: McGraw-Hill).
- Weissman, Gary (2005) *Fantasies of Witnessing: Postwar Efforts to Experience the Holocaust* (Ithaca: Cornell University Press).