

## Can Web 2.0 shape Meta-Memory?

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### **Abstract**

The social features of recent Web 2.0 technologies applications can bear a strong relationship to memory production and can help to shape personal identity through emotional connections by synchronizing people's subjective experiences. The input of new media technologies into "how" and "what" to remember is a crucial factor influencing memory status in contemporary societies. The computer network is a performative agent of remembrance processes, and new and important criticism arises due to the externalization of personal memory into digital forms. This type of mediated memories circulates widely in mass culture and despite not having an organic basis; such memories can be interiorized by a person without having them experienced in real life, because of an involvement in cultural technologies. As those memories become an integral part of a personal experiences archive, can they act as a prosthetic element? In consequence, can an individual sense of meta-memory be affected?

**Key Words:** Collective Memory, Remembrance, Mediated Memory, Prosthetic Memory, Meta-Memory, Web 2.0.

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The skill consciously to remember experiences is a fundamental characteristic of individual and social well-being. Although always threatened by amnesia, the memory is an important cognitive ability because it forms the basis for knowledge and thought. The feeling of self is expressed by personality and identity, and is based on long-term memories of events; experiences and emotions lived in an individual or collective way, in proximity or in distance. The individual memory is formed by the coexistence, strained and not always peaceful, of several memories (personal, family, group, regional, national, etc.). Those memories are rooted in subjectivity and are internally constructed, but a person can only get consciousness of itself in communication with others.<sup>1</sup>

In a person, the notion of past and future is seriously compromised without the memorial fluid, which gives uniformity and continuity to the events. The mental canvas of past re-presentations does not remain stable but is in permanent construction, evolving from successive reinterpretations of the past over time, under the impulse of desires that are continually shaping a personal life. This alone should be enough to justify the academic interest in

understanding how digital technologies are affecting the nature of our processes of remembrance. Increasingly in the last century, the cultural patterns of communication have become technologically mediated, often merging old practices with new conventions: television, telephone, photo and video cameras, writing letters and the current version of e-mail, *sms* and posts. The role of digital media to capture both the individual and the collective memory should be interrogated. Further, to what extent the materials and the presence of subjective reflection on the web are transferred to a public and social memory, forming a memorial meta-representation.

### 1. The Ambivalence of Memory

The gradual development of civilizations in the twentieth century, would indelibly affect the mode and type of attention given to memory studies. In Western societies, progress based on industrialization, urban concentration and modernization of everyday habits weakened the traditional pillars - School, Church, Family and State – as guardians of the preservation and transmission of collective memory values. The decline of an oral tradition followed the disconnection between people and their ancestral roots, creating a “crisis of memory,” a reflection of the cultural and political modernist context at the beginnings of the century that tended to disregard collective memories to welcome the future, its innovation and originality.

Following Pierre Nora’s explication, as traditional memory weakened the need to collect the visible signs of what was before - evidences, documents, images, speeches -, became more assiduous. This profound sense of loss, anxiety and insecurity about the relationship between culture and past would trigger, by means of a complex mechanism of transfer, the fascination for *lieux de mémoire* - places where the memory crystallizes and heritage is consolidated. Accordingly, in the second half of the twentieth century, a number of changes of a political, technological, cultural and interpersonal kind affected the way by which people and societies forget and remember. The reflection of these changes into how societies and individuals read the past would set a real *boom of memory*, a tendency to enhance the capacity for memory in a variety of forms: criticism of official versions of history and recovery of areas of history previously repressed; demands for signs of a past that had been confiscated or suppressed; growing interest in “roots” and genealogical research; commemorative events and new museums; renewed sensitivity to the holding and opening of archives for public consultation. In addition, this period promoted the so-called *heritage industry*, as the representations and activities invoked in remembrance and in preservation or reactivation of the past were objects for instrumental use for commercial or governmental purposes.<sup>2</sup>

The systematic study of the memory theme tends to be interdisciplinary in the sense that there are many values to consider, from the

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practices and support technologies to the mediation and consumerist relationship. Just because the boundaries of individual, social and psychological are of a nebulous nature, it follows clearly that conceptual and epistemological levels are extremely hard to reconcile in a scientific approach. A prospect of an interpretive display could be elucidated with the contribution of different (sub) disciplines approaches. Therefore, the purpose of this study is to achieve an interwoven analysis by incorporating new issues arising from the increasing technologization of the society, which directly affects the larger theme of memory.

## 2. Web 2.0: Socio-Cultural Practices Mediated

At the end of the last century, some conditions contributed to configure a new technological paradigm that made information as the raw material on which society operates.<sup>3</sup> These factors are simultaneously cause and effect of a broader phenomenon in the transformation of our material culture. The impact of global networks, and the continued increase in the bandwidth, contributed to reconfigure the role of the computer in western societies: not as an end in itself (type of workstation, as occurred in previous decades), but as a mediator to access applications in cyberspace. Both the phenomenon of *killer applications* and the plethora of services that characterize *Web 2.0* are well-know examples: the activities are now more web-based (the Internet as an operating system) and less in local hard disk.

Gradually, all processes of life and human culture have been directly shaped - although not determined - by the new technological environment and strongly influenced by the advent of the Internet. The proliferation of mobile devices with wireless connection allowed computer tools to be used outside the scope of private space, expanding horizons to the public arena. As information is a natural element of human activity, there was the immersion of new technologies in all processes of individual and collective existence, while bearing in mind the limitations imposed by the digital divide.<sup>4</sup>

Following from the above, the advent of the “second wave” of the Web, standardized by the buzzword “2.0”, was a landmark in the era of *Open Access* that usually refers to the access via the Internet to material free for all users to read and use. In recent years, a number of projects and Web services have gained a particularly connected dimension, called *social software* that promotes and stimulates the group interaction through contact and collaboration between users in tasks at work or leisure. There are several variations of *social software*, which emphasize communication, on the one hand, or collaboration and / or social interaction, on the other.<sup>5</sup> What these tools promoted was the lowering of technical skills needed to access the benefits of information technologies.

In a simple and free way, millions of people participate in producing, sharing and exchanging these forms of media. Despite some

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criticism that arose concerning this sudden enthusiasm for employing such technologies,<sup>6</sup> Web 2.0 has not only increased the communicative and audience dimensions, but also the appeal to subjectivity and affection.

For our purpose, it is noted that the traditional “shoebox” of analogue memory objects (photos, letters, and videotapes, for example) has increasingly become the form of digitized objects. Apparently, digital technologies have changed the way we frame the past into new sensory ways, affecting both the conventions of remembrance and of communication. In this way, the personal archive gains advantage in terms of access, visibility and scope. Although the presence of these technologies is not crucial by itself, however, they influence the preferences for preservation of certain kinds of memory potential in a given format / medium, or in combination between them. It is under this principle that the proliferation of mobile phones increased the immediateness and dissemination of photos or videos taken *in loco* and *in situ* to an unprecedented level. Taken as an example, and despite all the reflections around the changing newspaper environment, some optimistic visions recognizes that the availability and popularity of new media technologies is something that performs a new cultural practice, the participatory journalism. Such conditions, in the words of B. Franklin, “empower a growing army of citizen journalists, bloggers and readers wishing to post comments online, to construct a more pluralist and democratic debate about matters of public interest”.<sup>7</sup> As an example of the Web’s reporting power, one of the first pictures to be posted from the U.S. Airways plane crash into the Hudson River, on 15th January 2009, was taken by a citizen who was on a ferry, took a snap on his *iPhone*, and immediately uploaded it to *Twitter*, a micro-blogging service. Thousands of people viewed the picture in the following moments and many media organisations have since interviewed the author. It should be noted that a member of the public took the photo.<sup>8</sup>

Whether the Web’s current impact on newspapers may be seen as a healthy form of active participation or simply as a marketing campaign, it is clear beyond doubt that the record of history has now new and important insights - from all to all - without being scrutinised by the sacralised narratives of religious or state authorities. Despite being little perceptible, the unlimited storage of memories supported by technology perhaps begins to correspond to the emergence of new rituals and new ways of socializing and experiencing memories.

### 3. Mental Constructions

It is important to examine how this technological platform in development, with its fragilities, recalls classic questions about “memory”, forcing a reassessment of the traditional problems. The digitalization modalities have promoted a reinvention of the old rituals. The spread of

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personal memory is, increasingly, an online task through the simultaneous use of multiple formats for presenting information (text, graphics, animation, images, videos and sound). The technologies of memory are increasingly mediated and massive forms of visual technologies.

The social features of *Web 2.0* applications can help to shape the feelings and personal identity through emotional connections. Some of the important functions have been the synchronization of the subjective experience with others and the consequent confrontation of value judgements. The cultural practices of blogging, the participation in forums with comments or in other cyber-places of public discussion like on newspapers websites, the deposit of personal videos on *YouTube* and the alike, a display of personal and family photo blogs, the labelling of metadata informal vocabulary (collaborative or social tagging and folksonomies), the creation of networks of social relationships through services that promote and streamline the interaction group (*Hi5, MySpace, FaceBook, Orkut, MSN Messenger, GoogleTalk, Twitter...*), the edition of “informational” contents with more or less scientific authority through the use of wikis, among others examples – all in general reflects the need to synchronize personal experience with the desire to fix remembrances and to revisit them over time.

The online participation has become an experience of real life, a construction of self mediated by tools for reflection and communication, of which *Second Life*, while metaverse, a universe within the universe, is the maximum exponent. *Twittering*, a news service of the ego that allows people to share information with the world the minute they get it, can be a constant update of oneself (“who”), their life (“what”) and particularly about their whereabouts (“where”), for this practice reveals high affinity for mobile using wireless technologies for Internet access. It corresponds with insights about commentaries on daily life, which, in a sceptical sense, can reveal a strong sense of lack of identity and can suggest a level of personal insecurity. However, this constant sense of connection gives an instant and unfiltered outlet for self-expression and allows someone to follow another life’s references, thoughts, moods, location, ideas or even projects; another opportunity provided by the Internet.

Overall, due to the dynamics of powerful databases that traces specific virtual connections on the Web, the facets of an individual gain a wider social projection, well explicit in the “long tail” effect: the pace of minorities (the originality and sophistication of individualism or niche market) is not obscured by the “dictatorship” of the majority<sup>9</sup>. The *World Wide Web* opened up space for new cultural practices fulfilling a social need to connect itself to the vast contents of the community, society and History.

As human activities are increasingly carried through and by the Network, the electronic records indexation allows the mapping of an individual in the cyber universe. “Existing” in the immensity of cyberspace

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implies the ability to be found, to emerge from anonymity and from obscurity. The individual becomes exposed to the logic of relevance and ranking processed by search engine's algorithms (as Google's *pagerank*). In the Web environment, belonging to the "index" hasn't the ruthless stigma of the Catholic Inquisition sanction. However, there are not so few notices reporting conflicts with the viral spread of unwanted divulgence of private records or activities. Even more relevant is to know how far a person can eliminate the traces of their presence in cyberspace.

Overall, and in spite of further discussion, it is apparent that the digital tools challenge the assumptions of memory externalization, recalling the ancient controversy of Plato in his much-admired work *Phaedrus*. Instead of being confined to simple registration machinery for automatic storage and retrieval - reminiscences of Vannevar Bush's *Memex* machine<sup>10</sup> - the computers have allowed a new dimension as the technologies of self, with creativity and emotional potential. Such a conclusion leads to the next point.

#### **4. Prosthetic Memory and Meta-Memory**

Therefore, new and important considerations arisen in the face of the increasing externalization of individual memory within digital formats. These procedures are being used as aids to memory and reflect the techniques of our time. Instead of the classical Greek *ars memoriae*, we now trust in external devices, among them are the paraphernalia of *Web 2.0* services. These tools for recording and updating the past guide future memory and identity of users. Literally and metaphorically, they act as amplifiers of affect, while dramatically increasing the speed of communication and audience range. When in 1999 two students of Columbine School in Littleton, Colorado (USA) attacked a school with guns and explosives, the event was reported worldwide in real-time. Regardless of its updating speed, the online editions of local newspapers expanded their coverage to include views and comments, photos, messages of consolation and encouragement, and eyewitness accounts of the event, which were innovations in order to comfort and support the local community. Some of these procedures would soon be perceived as being citizen journalism and that potential could well able the international readers to understand the events through its local contexts.<sup>11</sup> Also in 7 July 2005, the British public's response to the underground and bus bombings showed how visitors to online news sites were willing and interested to contribute content. The BBC received 22.000 emails and text messages, 300 photos and several video sequences on the same day of the attacks. The dramatic scenes and videos dominated the news from the BBC, the first time when this kind of material was considered of greater confidence than professional content. Quantitative evidences seem to show that websites based on user participation generate more traffic than those sites unrelated to this concept.<sup>12</sup>

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The emergence of online tools, as mentioned previously, that allows for broad participation in the creation and dissemination of user generated contents and symbolizes presence and subjective reflection on the Web, can stimulate the propensity to share feelings and emotions publicly. By this means, emotional memory subjectivity can be transferred from an autobiographical memory to a public memory, because it is exposed and shared. It also becomes social because it connects the private thoughts to the public resources of collective common experience. This transmission of memories can reinforce the feeling of belonging to a group and a culture, forms of representation that Halbwachs called “collective memory”,<sup>13</sup> and that Assmann gives a more comprehensive attribute as “communicative memory”, when related to its proximity to everyday, or “cultural memory”, characterized by a larger temporal horizon.<sup>14</sup>

Inevitably, the media apparatus promote changes in the remembrance processes. The networked computer is an agent shaper of remembering. The digital tools can help to conceptualise memory as a process sketched out in time and prone to the vagaries of continued reinterpretation and reorganization. The electronic network driven by *Web 2.0* can have as effect on individual and collective memories, or even on the recombination of both. Therefore, we should look at these tools as instruments of creative reminiscence and as mnemonic aids: Jose van Dijk indicates that patients suffering from dementia and Alzheimer's have been encouraged, as therapy, to try to retain a sense of themselves through blogs, using the new media as a form of self-expression and sharing point of their experiences with others, through the underlying connectivity of the Internet.<sup>15</sup>

As the memory is always implicit in the act and technique of writing, some services now provided by the *Web 2.0* can provide intimate awareness of each other in the outside world, while providing signs for the past itself. Therefore, it should be considered as opportunities to evoke dimensions of a personal subjectivity through such means. When added to life, the proliferation of mechanical memory experienced and produced using technology can form a new consciousness.

The types of memory in digital form circulates in mass culture, and despite not having an organic basis, they can, however, be experienced by people without having living them, as a result of an involvement in a wide range of cultural technologies, such as the Internet, in this case. These types of memory are, therefore, prosthetic memories, becoming a part of the personal experience archive, flowing subjectivity and present and future time's relationships. These memories cannot be “natural” or “authentic” in a traditional sense, and are made possible by a mass culture capable of a wide dissemination of images and narratives, but they can organize and vitalize the body and subjectivity for those who have adopted them.<sup>16</sup> In this dimension, the forms of memory that go beyond the ethnic and political boundaries and

that are enhanced by the technological changes of the media in the globalization era can also be called “cosmopolitan memory”.<sup>17</sup>

There is no memorial representation without different kind of traces. The innovative potential of the digital memory machine provides easy and immediate access to the path of life left by others, signed with traces a person leaves voluntarily or not, led by the irreversible turning point to the digital way of life of societies. Because it’s quite easy to follow trends of user’s web interests, the digital tools can help to taste the memories of a personality in change.

In everyday life, a person regularly requests multiple memories, recent or old, with greater or lesser degree of security and certainty. Joël Candau pointed the taxonomy of different forms of memory. Of these, I highlight particularly the meta-memory, that is, the representation that each individual makes of their own memory and the knowledge awareness, being able to highlight the features, interests, depth and gaps.<sup>18</sup> In this sense, by the meta-memory an individual can idealize its own memory, through a process of subjective awareness of themselves and aware of past membership and construction of identity, in distinction to that of others.

Digital media have the power to influence the brain process of perception and remembrance of experience. Thus, these digital tools, far from being mere external instruments of capture and repository, can help to build the concept of a past - both in terms of our private lives or as History in general, acting as meta-memory.

### Notes

<sup>1</sup> M Halbwachs, *La mémoire collective*, A Michel (ed), Paris, 1997 [1950].

<sup>2</sup> P Nora (ed), *Les lieux de mémoire: la République, la Nation, les France*, Gallimard, Paris, 1997, and also, P Nora, ‘L’avènement mondial de la mémoire’, *Tr@nsit online*, no. 22, 2002.

<sup>3</sup> M Castells, *The Information Age: Economy, Society and Culture*, I - The Rise of the Network Society, Blackwell, Oxford, UK, 1996.

<sup>4</sup> E Hargittai, ‘Second-Level Digital Divide: Differences in People's Online Skills’, *First Monday*, vol. 7, no. 4, 2002.

<sup>5</sup> T O’reilly, ‘What is Web 2.0. Design Patterns and Business Models for the Next Generation of Software’, *O’Reilly (online)*, 2005.

<sup>6</sup> Keen talks about the evils of “amateurism” within public opinion (A Keen, *The Cult of the Amateur*, Nicholas Brealey Publishing, London, 2007). In the opposite way, Surowiecki underline wise decisions reached by the wisdom of crowds (J Surowiecki, *The Wisdom of Crowds*, Doubleday, London, 2004).

<sup>7</sup> B Franklin, ‘The Future of Newspapers’, *Journalism Practice*, vol. 2, 2008.



<sup>8</sup> The pictures of the plane crash into the Hudson River, in New York City, were taken by Janis Krums and uploaded to his *Twitter* account <<http://twitpic.com/135xa>> with the astounding commentary: “There's a plane in the Hudson. I'm on the ferry going to pick up the people. Crazy”.

<sup>9</sup> C Anderson, *The long tail*, Random House, London, 2006.

<sup>10</sup> V Bush, ‘As we may think’, *The Atlantic Monthly*, vol. 176, no. 1, 1945.

<sup>11</sup> J Hall, ‘Online Editions: Newspapers and the ‘New’ News’, *Pulling Newspapers Apart: Analysing Print Journalism*, 2008, pp. 216-217.

<sup>12</sup> A Hermida and N Thurman, ‘A Clash of Cultures’, *Journalism Practice*, vol. 2, no. 3, 2008.

<sup>13</sup> Halbwachs, *La mémoire collective*, A Michel (ed), Paris, 1997, [1950].

<sup>14</sup> J Assmann and J Czaplicka, ‘Collective Memory and Cultural Identity’, *New German Critique*, no. 65, 1995.

<sup>15</sup> J Dijck, *Mediated Memories in the Digital Age*, Stanford University Press, Stanford, California, 2007, pp. 58-62.

<sup>16</sup> R Robin, *La mémoire saturée*, Stock, Paris, 2003. See, also, A Landsberg, *Prosthetic Memory: The Transformation of American Remembrance in the Age of Mass Culture*, Columbia University Press, New York, 2004.

<sup>17</sup> D Levy and N Sznajder, ‘Memory Unbound: The Holocaust and the Formation of Cosmopolitan Memory’, *European Journal of Social Theory*, vol. 5, no. 1, 2002.

<sup>18</sup> J Candau, *Mémoire et identité*, PUF, Paris, 1998, p. 11-15.

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