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Digital networked media and social memory. Theoretical foundations and implications

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Abstract

The article discusses the potential of the internet and especially of the world wide web as a medium for collective remembrance. First, the theoretical ground is laid by outlining three concepts of memory. Here, the emphasis lies on how media are conceptualized in relation to cultural memory. In a second step, these theoretical premises are connected to an understanding of discourse as social cognition. As such, we argue, it forms the integral part of memory work and can also have its place in computer-mediated communication. On this basis, the web is viewed as a medium of and for memory work constituted by discursive practices which form cultural memory.

Key words

Internet; collective memory, social cognition

Resumo

O artigo discute o potencial da internet e especialmente da rede mundial de computadores como um meio de memória coletiva. Em um primeiro momento delineamos três conceitos de memória. Na qual a ênfase recai sobre como a mídia se constroem em relação à memória cultural. Em uma segunda etapa, essas premissas teóricas estão ligados a uma compreensão do discurso como cognição social. Como tal, defendemos, que faz parte integrante do trabalho de memória e também pode ter lugar na comunicação mediada por computador. Nesta base, a web é vista como um meio de e para o trabalho de memória constituído por práticas discursivas que constituem a memória cultural.

Palavras-chave

Internet; memória coletiva; cognição social

1 Introdução

Since 18 August 2009 the social networking site Facebook has a new member: Henio Żytomirski, born 1933 in Lublin, Poland. At first sight, that's nothing special. But the fact that Henio was murdered in the extermination camp Majdanek at the age of 8 makes him different to the other Facebook users. His newly acquired Facebook friends can 'meet' his virtual

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profile, they can watch his digital photos showing him with his family or they can send him messages. And occasionally, Henio even posts about his experiences as if he would still be with us today.

Of course, it is not the Jewish boy himself, who writes about his life on the internet and thus spans the temporal gap of nearly 70 years. Instead, his Facebook profile was created by the cultural center *Brama Grodzka-Teatr NN* from Lublin. By telling Henio's story, they hope to commemorate the Jews of Lublin who were persecuted and murdered by the Nazis. Nevertheless, the other Facebook users do not communicate with the staff of the cultural center. Instead, their comments and messages are directly addressed to Henio, or at least to his virtual presence. Past and present therefore become if not interchangeable then closely intertwined.

Thinking about examples like this, it is pivotal to highlight the idea that memory is constituted in presence. Hence, the founder of modern-day memory studies, Maurice Halbwachs (1992 [1925]), had already noted that the past is always reconstructed and thus established in the present. Therefore, memory can be described as an interpretive process, that is, as memory work. As such, it overcomes the temporal and spatial distance between the situational acts of remembering and the past events which are remembered. In this light, scholars like, for instance, Jan Assmann (1995) have stressed the double role the media play: on the one hand, they record, store, transmit and provide material for memory work and, on the other, they are places for remembering themselves. If we acknowledge the importance of media for and in memory work, the rise of digital, networked media seems to necessitate at least a reconsideration of collective memory and memory processes. In broad terms, some argue that the internet and all networked media only have negative effects on the formation of collective memory. Thus, they foresee the dawn of an age of oblivion where the economies of attention only leave little space for 'real' memory work. Contrary to that, others expect new ways to reorganize communication and social exchange which form the basis of remembering.

From this background, the article discusses the potential of the internet and especially of the world wide web as a medium for collective remembrance.¹ First, the theoretical ground

¹ It is necessary to distinguish between the internet as the comprehensive network of networks and the world wide web as the system of linked hypertext documents, which is the relevant focus of this discussion.



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is laid by outlining three concepts of memory. Here, the emphasis lies on how media are conceptualized in relation to cultural memory. In a second step, these theoretical premises are connected to an understanding of discourse as social cognition. As such, we argue, it forms the integral part of memory work and can also have its place in computer-mediated communication. On this basis, the web is viewed as a medium of and for memory work constituted by discursive practices which form cultural memory.

2. Theoretical background: concepts of memory

In what follows, we shall not embark on an extensive discussion of the various strands of scholarship on collective memory. Instead, we reconsider one line of argumentation to ground and elaborate the understanding of the web as a medium of and for memory work. It includes three steps: Halbwachs' notion of collective memory, the Assmann's discussion of communicative and cultural memory, and Erll's exploration into memory cultures and memorial media.

2.1 Halbwachs' concept of collective memory

Maurice Halbwachs is arguably the most important figure of the second generation of Durkheimian sociologists. The crucial point of his work on collective memory (*mémoire collective*) is the insight that it is a social, not an individual, construction (Cosser, 1992). He thus introduces a culturalistic concept to address the question of human sociality. Halbwachs' answer is that the constructed past mediates a group's feeling of togetherness. In this sense, a group is a set of people who conceive their unity and peculiarity through a common understanding of their past: 'Memory is a collective function.' (Halbwachs, 1992[1925]: 183). Thus, memory is constructed in the individual during communication with other members of a given social constellation. It lives and sustains itself in communication processes. Moreover, memories act like social order parameters or frames (*cadres sociaux*). An individual places his/her thoughts in given frameworks and therefore participates in a collective memory so that he/she is capable of the act of recollection. Apart from the constructivist aspect there are two other central points that need to be considered: the social relativity and the conditionality of memory. On the one hand, memory is always bound to a single social group. 'Every collective memory requires the support of a group delimited in space and time' (Halbwachs, 1950: 84). Halbwachs denies the possibility of a universal group as well as of a universal



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memory. There are as many collective memories as there are groups and people normally share a plurality of collective memories. On the other hand, the construction of the past is fundamentally shaped by the concerns of the present. Memory is in accord with the predominant discourses and it is reconstructed in relation to its functions in a social context. Memory is remembered, that is, re-constructed, insofar as it is needed. And only what is communicated is remembered: 'One cannot think about the events of one's past without discoursing upon them' (Halbwachs, 1992[1925]: 53).

However, Halbwachs' theoretical approach does not include any strong reference to media and he only paid little attention to their role (Erll, 2009: 3). In fact, the 'cadres sociaux' have mediating functions for remembrance, but for Halbwachs they do not act as material conveyors of memory. As such, frames are no archives to store material.

2.2 The differentiation of communicative and cultural memory

Based on Halbwachs' concept, Jan and Aleida Assmann examined the organization and content of collective memories. In so doing, they separated collective memory into two distinct parts: communicative memory and cultural memory (Assmann, 1995). The first includes all forms of collective memory based on everyday communication. Hence, it can be regarded as the social short-term memory shared with contemporaries. It is characterized by informality, a high degree of non-specialization, the reciprocity of roles, disorganization and thematic instability. It is constructed in interactions with a high degree of formlessness and willfulness. Furthermore, communicative memory is limited to a temporal horizon spanning not more than four generations, that is, 80 to 100 years. In turn, cultural memory is distinguished by its distance from daily life. Like its counterpart, it is related to one group and defined through a kind of 'identificatory determination in a positive ... or a negative ... sense' (Assmann, 1995: 130).² But it differs from communicative memory in its formality, fixed organization, objectivations, buttressed communicative situations and the specialization of its bearers. It has a limited participation structure consisting of administrators, custodians, and the like.³ Cultural memory manifests itself in 'media and platforms embodying and

² Therefore, they disagree with Halbwachs who argued that on a certain step of this development the group relationship is lost – *mémoire* is transformed into *histoire*. For the relation between memory and history see Wertsch, 2002: 40ff.

³ Assmann (1995: 130ff.) lists altogether six characteristics: concretion of identity (relation to group) capacity to reconstruct (memory always relates to a current situation), formation, organization, obligation (system of values), reflexivity.



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transmitting memory’ (Hebel, 2003: x) and is, as Marita Sturken (1997: 1) remarks, a ‘field of cultural negotiation through which different stories vie for a place in history’. It is debatable whether the two *modi memorandi* constitute a polarity or whether they are just the two extreme points on a continuum. Aleida Assmann (2006a), for instance, posits a transition that could best be described using metaphors of liquidity and solidity. Hence, the vivid, ‘liquid’ communicative memory crystallizes in forms of objectified, ‘solid’ culture, whether in images, buildings or monuments. Yet the most profound and comprehensive transformation of memory has been accomplished by the cultural innovations of writing and, building on that, of texts. Texts facilitate the extension of communicative situations and are an external domain to record information so that social relations can be embedded so to temporal and spatial distances. However, the continuing production of texts introduces a differentiation of text-based cultural memory into a foreground and a background or, in other words, into ‘working memory’ and a ‘reference memory’ (A. Assmann, 2008). While the former, what could be called the *canon*, consists only of a small number of normative texts, the latter encompasses the vast array of stored material in un-inhabited, un-remembered *archives* that epitomize, perhaps temporarily, a form of oblivion. The critical point is the transition between these ways of remembering because there are not only passages from communicative to cultural modes of memory, but also interactions between the canon and the archive (J. Assmann, 2008).

Evaluating their contribution, we have to consider that Jan und Aleida Assmann’s concept has been mainly developed by studying pre-modern societies. Therefore, Zierold (2008: 401) draws the conclusion, that if we want to take Assmann’s concept seriously, recent memories processes during last 80 to 100 years cannot be analyzed with the terminology of cultural memory. This would mean that our introductory example of Henio's Facebook profile would not count as part of cultural memory. The Assmann’s limited use of the notion ‘cultural memory’ in the areas of history, art and religion thus prevent its straightforward application to the context of online memories. Instead, it is more appropriate to borrow Olick’s (2008: 158) broad concept of collective memory as ‘wide variety of mnemonic products and practices’. Therefore, the focus on a rather extreme form of cultural memory as canon and archive is replaced by the inclusion of types of remembrance and cultural memory including communication on and with electronic media (Welzer, 2008). Therefore, in accord with Zierold, we do not argue on the assumption that new media like the web will put an end to



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memory work and formation of cultural memory. In contrast, we adopt his point that “considering the acceleration processes of modern media, it merely becomes obvious that the coordinates of time for social processes of memory have shifted” (2008: 401).

2.3 Cultural memory and memory cultures

Scholars like Erll and Nünning too adopt Halbwachs’ idea that there is no universal memory. In their concept of memory cultures they therefore stress the plurality of ‘communities of memory’. This term refers to the insight that in contemporary societies there are different national, regional, or ethnic groups living in more or less peaceful coexistence and each of them constitutes (and is constituted by) different memories (Erll/Nünning, 2006: 12). Moreover, with the concept of ‘memory cultures’ they shift the theoretical perspective from memory as a thing to memory as a process. Hence, Erll assumes that the term ‘memory’ itself is an artificial scientific construct which can neither be observed nor reconstructed easily. Instead, it is only assigned during the reconstructive analysis of memory processes (Erll, 2009: 2) According to her argumentation, cultural memory processes should furthermore be analyzed on three different levels (Erll, 2005: 34-37): first, the basic conditions of memories encompassing social developments, particular knowledge systems, concepts of time, and changes in the general world views should be considered. Second, of the formation of specific memory cultures and the introduction of novel technologies of and for remembrance, which include the digitally networked media, have to be analyzed. Third, the situational performances of particular acts of remembrance have to be examined.

In this light, the relation between memory and media is based on the relationship between media and processes of remembrance (Zierold, 2008: 399). Current memory cultures are, we argue, highly mediated because all dimensions of live, individual and social, are mediated (Livingstone, 2009; Lundby, 2009). If we hold that social memory takes its start in social action and interactions and if these activities are increasingly accomplished via digital networked media, then cultural memories too are constructed in and with these media environments.

In her analysis of the relation between media and memory cultures Erll refers to Bolter and Grusin’s (1999) study of remediation processes in new media (Erll, 2009: 3). She notes that there is no mediation without remediation when remediation is understood as the



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replication of memorable events represented in different media (Erll, 2008: 392). Regarding the dynamics of cultural memory she explains that “all representations of the past draw on available media technologies, on existent media productions on pattern of representation and medial aesthetics” (Erll, 2009: 4). In the processes of remediation there is a ‘double logic’ because, on the one hand, memorial media strive to provide a ‘transparent window’ into the past, while, on the other, this immediacy could only be achieved by recycling other media or media products (Erll, 2009: 4). To take the introductory example, the Facebook profile of the Jewish boy Henio offers digitized yellowed photos, digital copies of family letters, and scanned historical documents like transport lists of the deportation. This historic media material is therefore employed to provide an authentic window into the past. The counterpart to such remediation is the process of self-reflexivity of memorial media (Erll, 2009: 4). One element of self-reflexivity in our example is Henio’s Facebook wall of comments. Besides short messages which are directly addressed to the dead boy, the users also discuss with each other, for instance, about the sense of such an online project of holocaust remembrance.

3. Discourse as social cognition

Halbwachs, as well as the Assmanns and Erll, stressed the communicative construction of memory. However, all of them do not discuss the conceptual background of the notion of discourse, which seems, however, essential to understand the social nature of memory, the functional mechanisms of memory work and the shift between the communicative and collective frames of memory.

From a sociolinguistic perspective, discourses are public means for the constitution, manifestation and distribution of knowledge. This knowledge is materialized in texts and other symbolic artefacts forming the material basis of remembrance. The text is, as Wertsch (2002: 14) concludes in quoting Bakhtin, ‘the primary given’ of meaning, communication and thought. Thus, although knowledge and therefore memory have a physiological precondition, the form and the content of memory are mediated through social experience and formed in communication. The importance of communicative interaction makes it appropriate to refer to Fairclough’s notion of discourse. He understands discourse as ‘spoken or written language use’ and therefore fundamentally as social practice (1995: 63ff.). Discursive practices are manifested in texts. Fairclough adopts Halliday’s (1978) broad definition of texts to include both written and spoken sequences. Such texts are connected to each other via formal,



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semantic and semiotic references. Fairclough used the term ‘intertextuality’ (1995: 101) to address a central feature of texts in a discourse: they are composed of ‘snatches of other texts, which may be explicitly demarked or merged in, and which the text may assimilate, contradict, ironically echo, and so forth’ (1995: 84). Moreover, he argues that the postulation of intertextual links accentuates the ‘dialogicality’ (2003: 41) of texts: on the one hand, some texts form dialogues with other texts; on the other, some texts are the outcome of dialogical negotiations. While the first instance points to the various voices that form a discourse, the latter shows the final version of a process ‘from conflict to consensus’ (Wodak, 2000). Regardless of which forms of texts are connected in discourses, these texts always lexicalize the world in particular ways (see Fairclough, 2003: 129). So, discourses give access to the examination of collective belief systems, patterns of thought and argumentation structures. This connects to the understanding of discourses as a form of social cognition. In his definition of discourse as verbal interaction, van Dijk (1997) highlights the importance of the cognitive view of discursive processes. Like knowledge and memory, cognition can be theorized from its mental or social aspects. Thus, social cognition can be understood as the mental processing of information or as the social construction of knowledge about the world (Moscovici, 1984). This second interpretation, stressing the joint discursive construction of social reality, rests upon a tradition blending elements as diverse as Mead’s symbolic interactionism, Wittgenstein’s late philosophy and ethnomethodology. The crucial point is that this line of argument treats ‘human knowledge as a social product under shared ownership’ (Condor and Antaki, 1997: 329). Consequently, the nature of knowledge and memory can be understood by looking at their constructive discourses. Yet, we have to keep in mind that knowledge and memory are not similar to each other. Thus, Jan Assmann points to the difference between these two when he states: “Whereas knowledge has a universalist perspective, a tendency towards generalization and standardization, memory, even cultural memory is local, egocentric, and specific to a group and its values.” (J. Assmann, 2008: 113).

4. The web as medium for and of memory cultures

To sum up the theoretical considerations, the essential points of memory concepts that can be adopted in the present context are: first, Halbwachs’ socio-constructivistic conception of the past that shaped the entire discussion. The past is relative, its configuration arises from the frames of reference of the current presences. Second, the postulation of two frames of recollection – communicative vs. cultural – introduced by Jan and Aleida Assmann. They



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argue that there is a passage from living memory to fixed writing and from communicative remembrance to organized memory work. In addition, cultural memory is subdivided into a functional and a storage part. Third, the revision of the concept of cultural memory so to include pluralistic memory cultures and the location of digital, networked media in the context of remediation, recycling, and self-reflexivity. From this point, the idea of memory work as mainly communicative practices is supported by an understanding of discourses as forms of social interactive cognition crucial to the formation of memory.

However, the attempt to associate these central elements to the functions and characteristics of the web meets immediate obstacles. First, the fundamental question is whether it is at all possible to build up collective memories in a flexible, individualized, decentralized, a-historic medium like the web, or whether it is rather a place of collective oblivion. The problem is that, traditionally, collective memory in literate societies is based on lexicalization and mediation. It is debatable if the web does foster the formation and compilation of corresponding memories. Yet as already noted above, the Web can also be viewed as a vast hypertext archive of information (e.g., texts, sound files, images, video clips) as it was envisioned by Otlet (1934), Bush (1945) and Nelson (1974). So it can function as a resource and promoter of the construction of collective memory. Contrary to that, it can secondly be argued that the web does not play an active role in the memory work of social groups because it only contains enormous amounts of information that are stored but not remembered. One possible way, however, to address this objection is to argue that the web cannot be understood as one consistent medium like television or radio but rather as an underlying basis that fosters different applications, tools and forms of communicative interaction. These tools enable actors who are not part of the traditional institutions regulating the discourses about the past to constitute remembrance beyond established interpretations. Memory work thus can no longer be separated into private, small circle, un-mediated intercourse and public, mass mediated discourse. On the contrary, digital networked media like the web allow for multiple ways of remembering in different social constellations, with different publics and among different communities. In our example these different levels of cultural and communicative remembering are linked to each other. On the one hand, the cultural center *Brama Grodzka-Teatr NN* which runs the Facebook profile can be identified as one of the professional, traditional traders in cultural memory. On the other, the users who interact with Henio and with each other are, in this sense, amateurs who nevertheless also



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engage in memory work. The central difference on the web is, therefore, not the interplay between the cultural and the communicative level of memory which is not to unique to the web but takes place in different places, for instance, in museums, too. On the contrary, the specific difference lies in the openness and public character that is given the collective acts of remembrance apart and beyond established venues and occasions.

Thus, the web has the potential to enable new patterns of memory work since it merges features of communicative as well as of cultural memory. The web presents not only an archive of lexicalized material but also a plethora of potential dialogue partners. In their discursive interactions, texts can become an active element in forms of networked, global remembrance. In consequence, these texts may not only be part of 'storage' memory but also part of 'functional' memory because they are remembered and linked to other texts in forms of 'living' intertextuality.⁴ In this regard, O'Malley and Rosenzweig (1997) argue for the growing importance of the web because it allows for communication and exchange of divergent interpretations of the past. The web demonstrates how 'meaning emerges in dialogue and that culture has no stable centre, but rather proceeds from multiple "nodes"' (O'Malley and Rosenzweig, 1997: 154). The 'new culture of memory', as Rosenzweig (2003: 756) calls it, is fundamentally defined by 'horizontal networks of interactive communication that connect local and global' (Castells, 2007: 246). Its interactive potential enables novel forms of collaboration, modes of collective evidence, and it can become part of people's cultural acquisition (see Reading, 2001, 2003). Yet this line of argumentation meets a third hurdle. The problem is that the Assmanns' view communicative memory as mainly orally negotiated, whereas most communication on the web is a 'text-based affair' (Wilbur, 1996: 6). Despite the rapid development of internet technology and the growing importance of speech and film (e.g. the highly popular video portal YouTube), spoken language today is only of limited presence. One possible starting point to address this issue is the notion of 'Netspeak' as it was postulated by David Crystal (2006). He argues that although web-based material is predominately written, its type of language displays unique features. This specific form has, for instance, been termed 'electronic discourse' (Davis and Brewer, 1997) or 'interactive written discourse' (Ferrara et al., 1991). One of its most prominent features is 'writing that reads like conversation' (Davis and Brewer, 1997: 2). In his comparison between

⁴ Nevertheless, forms of 'global' remembrance are not ultimately bound to the rise of the internet. See Levy and Sznajder's study on *The Holocaust and Memory in the Global Age* (2005).



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speech and writing Crystal (2003: 291) shows that the former is typically time-bound, dynamic, transient and without a time-lag between production and reception. In contrast, the second is space-bound, static and permanent. Moreover, speech is characterized by many words and lengthy coordinate sentences, whereas writing usually displays multiple instances of subordination and elaborated syntactic patterns. On this basis, Netspeak relies on elements of both speech and writing. It can be found in several varieties that demonstrate almost the complete continuum between written and oral language. Therefore, Baron speaks of an 'emerging language centaur – part speech, part writing' (2000: 248). As a consequence, despite its written nature, there are forms of web-based communication displaying core properties of speech. For instance, most explicitly, the web chat is a conversation carried out by means of electronic processed text (Hutchby, 2001). The fourth critical argument is again produced by Aleida Assmann (2006b) who scrutinizes the potential of the 'second orality' originating from digital speech and writing. She interprets the difference between the duration of written letters on material carriers and the ephemerality of the flow of communication on the internet as the displacement of the process of canonization by the economies of attention. The key reason is that attention is always short-lived, neither sustained nor continuous. Consequently, there should be no concentration on some selected elements of the copious information online. However, in contrast to this assumption, the network analyses of the internet have shown that it constitutes a scale-free network with a power law distribution (Barabasi, 2002). Thus, there are only few sites, among them Facebook, that receive most of the attention while rest of the web only receives very scant attention.

5. Conclusion

To sum up our argument, we hold that the web, as all sorts of digital networked media, can be a medium of memory affording discursive memory work. It merges cultural and communicative frames of collective memory and enables multiple patterns of remembrance. Not only experts get a word in edgeways, but also individual actors interpret the past beyond established cultural modes of interpretation. Hence, the double logic of remediation which Erll has developed for memorial media in general also applies for online communication, particularly with regard to the web as a combination of different forms of personal, group and mass communication.



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To return to the example of Henio's Facebook profile, it can thus be described as a virtual memory place for holocaust remembrance. Unlike established offline memory places like the former concentration camps it has no physical space. In fact, it is a place for digitally wired communication and interaction. Thus, when Henio's friends wished him a happy birthday and sent him virtual gifts, the past and the present come at close distance.

6. References

Assmann, A. (2006a) 'Memory, Individual and Collective', in R.E. Goodin and C. Tilly (eds) *The Oxford Handbook of Contextual Political Analysis*, pp. 210–24. Oxford: Oxford University Press.

Assmann, A. (2006b) 'The Printing Press and the Internet: From a Culture of Memory to a Culture of Attention', in N. Gentz and S. Kramer (eds) *Globalization, Cultural Identities, and Media Representations*, pp. 11–25. Albany: SUNY Press.

Assmann, A. (2008) 'Canon and Archive', in A. Erll and A. Nünning (eds) *Cultural Memory Studies. An international and interdisciplinary handbook*, pp. 97–107. Berlin: de Gruyter.

Assmann, J. (1995) 'Collective Memory and Cultural Identity', *New German Critique* 65: 125–33.

Assmann, J. (2008) 'Communicative and Cultural Memory', in A. Erll and A. Nünning (eds) *Cultural Memory Studies. An international and interdisciplinary handbook*, pp. 109–18. Berlin: de Gruyter.

Barabási, A.-L. (2002) *Linked: The New Science of the Networks*. Cambridge, MA: Perseus.

Baron, N.S. (2000) *Alphabet to Email*. London: Routledge.

Bush, V. (1945) 'As We May Think', *The Atlantic Monthly* 176(7): 101–8.

Condor, S. and C. Antaki (1997) 'Social Cognition and Discourse', in T.A. van Dijk (ed) *Discourse as Structure and Process*, pp. 320–47. London, Thousand Oaks, New Delhi: Sage.

Coser, L.A. (1992) 'Introduction: Maurice Halbwachs 1877–1945', in M. Halbwachs *On Collective Memory*, ed. and trans. L.A. Coser, pp. 1–34. Chicago: The University of Chicago Press.

Crystal, D. (2003) *The Cambridge Encyclopedia of the English Language*. Cambridge: Cambridge University Press. 255-272

Crystal, D. (2006) *Language and the Internet*. Cambridge: Cambridge University Press.

Davis, B.H. and J.P. Brewer (1997) *Electronic Discourse: Linguistic Individuals in Virtual Space*. Albany, NY: SUNY Press.



Neamp

Erll, A. and A. Nünning (2006) 'Concepts and Methods for the Study of Literature and as Cultural Memory', in A. Nünning, M. Gymnich and R. Sommer (eds) *Literature and memory. Theoretical paradigms – genres – functions*, pp. 11-28 Tübingen: Francke.

Erll, A. (ed) (2008) *Cultural memory studies. An international and interdisciplinary handbook*. Berlin: de Gruyter.

Erll, A. (ed) (2009) *Mediation, remediation, and the dynamics of cultural memory*. Berlin: de Gruyter.

Fairclough, N. (1995) *Media Discourse*. London: Arnold.

Fairclough, N. (2003) *Analysing Discourse: Textual Analysis for Social Research*. London: Routledge.

Ferrara, K., H. Brunner and G. Whittemore (1991) 'Interactive Written Discourse as an Emergent Register', *Written Communication* 8(1): 8–34.

Halbwachs, M. (1950) *The Collective Memory: With an Introduction by M. Douglas*. New York: Harper-Colophon.

Halbwachs, M. (1992[1925]) 'The Social Frameworks of Memory' (extract), in M. Halbwachs *On Collective Memory*, ed. and trans. L.A. Coser, pp. 37–192. Chicago: The University of Chicago Press.

Halliday, M.A.K. (1978) *Language as Social Semiotic*. London: Edward Arnold.

Hebel, U. (2003) 'Introduction', in U. Hebel (ed) *Sites of Memory in American Literatures and Cultures*, pp. ix–xxxii. Heidelberg: Winter.

Hutchby, I. (2001) *Conversation and Technology: From the Telephone to the Internet*. Cambridge: Polity.

Levy, D. and N. Sznajder (2005) *The Holocaust and Memory in the Global Age*. Philadelphia: Temple University Press.

Livingstone, S. (2009) 'On the Mediation of Everything', *Journal of Communication* 59(1): 1-18.

Lundby, K. (ed) (2009) *Mediatization: Concept, Changes, Consequences*. New York: Peter Lang.

Moscovici, S. (1984) 'The Phenomenon of Social Representations', in R. Farr and S. Moscovici (eds) *Social Representations*, pp. 3–69. Cambridge: Cambridge University Press.

Nelson, T.H. (1974) *Computer Lib/Dream Machines*. Michigan.



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Olick, J.K. (2008) 'From Collective Memory to the Sociology of Mnemonic Practices and Products', in A. Erll and A. Nünning (eds) *Cultural Memory Studies. An international and interdisciplinary handbook*, pp. 151–61. Berlin: de Gruyter.

O'Malley, M. and R. Rosenzweig (1997) 'Brave New World or Blind Alley? American History on the World Wide Web', *Journal of American History* 84(1): 132–55.

Otlet, P. (1934) *Traité de documentation: Le livre sur le livre, théorie et pratique*. Bruxelles: Editions Mundaneum.

Reading, A. (2001) 'Clicking on Hitler: The Virtual Holocaust@Home', in B. Zelizer (ed) *Visual Culture and the Holocaust*, pp. 323–39. New Brunswick, NJ: Rutgers University 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.

Rosenzweig, R. (2003) 'Scarcity or Abundance? Preserving the Past in a Digital Era', *American History Review* 108(3): 735–62.

Sturken, M. (1997) *Tangled Memories: The Vietnam War, the AIDS Epidemic, and the Politics of Remembering*. Berkeley, Los Angeles, CA: University of California Press.

van Dijk, J. (2007) *Mediated Memories in a Digital Age*. Stanford, CA: Stanford University Press.

van Dijk, T.A. (1997) 'The Study of Discourse', in T.A. van Dijk (ed) *Discourse as Structure and Process*, pp. 1–34. London, Thousand Oaks, New Delhi: Sage.

Welzer, H. (2008) 'Communicative Memory', in A. Erll and A. Nünning (eds) *Cultural Memory Studies. An international and interdisciplinary handbook*, pp. 285–98. Berlin: de Gruyter.

Wertsch, J.V. (2002) *Voices of Collective Remembering*. Cambridge: Cambridge University Press.

Wilbur, S.T. (1996) 'An Archaeology of Cyberspaces: Virtuality, Community, Identity', in D. Porter (ed) *Internet Culture*, pp. 5–22. London: Routledge.

Wodak, R. (2000) 'From Conflict to Consensus? The Co-Construction of a Policy Paper', in P. Muntigl, G. Weiss and R. Wodak (eds) *European Union Discourses on Un/Employment*, pp. 73–114. Amsterdam: John Benjamins.

Zierold, M. (2008) 'Memory and Media Cultures', in A. Erll and A. Nünning (eds) *Cultural Memory Studies. An international and interdisciplinary handbook*, pp. 399–407 Berlin: de Gruyter.