

DIGITAL JOURNALISM

Democratizing social memory

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ABSTRACT

The use of digital databases by web-based digital newspapers is seen as a key-point in setting up the third generation web newspapers (this is a stage in which the resources provided by digital means are largely exploited in the development of journalistic products). The use of databases offers the possibility to keep online, for public access, all information already published by a web newspaper, even that present in other media such as printed newspapers, radio and video. The characteristic of memory in the web environment is potentialized to the point of provoking a breakage in the functions represented by this characteristic and in doing so making possible new uses for the journalistic discourse.

KEY-WORDS Digital journalism; on-line journalism; hypertext; social memory.

INTRODUCTION

In the third social environment (the first one refers to life and activities concerning nature, and the second refers to industrialized society), where actions are mediated by the digital technologies, in order to construct a global planetary town, without any boundaries, journalism in its present form in digital networks will also require some transformations in both professional practice as well as in historically established functions and conventions.

One of these transformations concerns the characteristic of memory, considered one of the breakthroughs provided by digital journalism with relation to its preceding modalities because of the combining flexibility made possible with some other characteristics like hypertextuality, interaction and continuous updating. Thus, journalism now presents the first form of multiple, instantaneous and cumulative memory. In this way, the function of documentation

and updating of the social memory that is characteristic of journalism acquires a new outlook with regard to ease of access, language familiarity, low storage costs and therefore leads to greater democratization in the use of information considering the open and decentralizing character of digital networks. The use of memory in digital journalism creates record files capable of presenting parameters for increasing the anticipated coefficient of the uninterrupted flow of information in its different formats (text, image and sound).

The third generation of digital journalism distinguishes itself not only by its more sophisticated teams and operators, having products specially designed for digital support, by the proliferation of movable platforms but also and above all, by the use of new software capable of setting up some powerful forms of publishing and some new formats in journalistic products. In this context, the use of memory in digital journalism has significant distinguishing points involving the incorporation of intelligent databases.

First, due to its capability for using search mechanisms to generate customized editions for digital publications as opposed to the fixed format in HTML sites.

Second, databases may allow experimentation of new journalistic types through the incorporation of these files in the work of information retrieval to better contextualize the available subjects.

Third, by making it possible to decentralize production by integrating users (ordinary people) as collaborators in the work of subject creation, that is, creating the social memory itself. And finally, the major point in this work concerns memory accessibility in relation to its low costs and the absence of geographical boundaries, and also the use of a language – which is journalistic – easy to understand by society in general. Thus, The third generation of digital journalism would serve as a factor in the construction of and in the access to this social memory.

1 ■ JOURNALISM IN THE THIRD ENVIRONMENT

From the concept of the third environment proposed by Echeverría (1999), one can make an approach to the possibility of the use of memory in digital support, especially the internet, making use of database technology. The memory as a characteristic of web journalism is seen as a possibility for breaking away from the journalistic models being used nowadays.

In the form of digital files, the memory of journalistic publications reaches a larger public; it is now a source to be used exclusively by the journalists themselves or by researchers, mostly historians.

To study these transformations throughout history, Echeverría proposes that society be divided into three environments¹. The first environment (E1) would correspond to the historical moment when human activities were those related to nature, whereas in the second environment (E2) we would have the industrialized society and human activities would be linked especially to the urban environment. The third environment² (E3) corresponds to the computerized environment in which teletechnologies contribute to the formation of a new environment. Seven technologies that made possible the formation of E3 are mentioned: telephone, radio, television, electronic cash, telematic networks, multimedia and hypertext.

By saying, “a deep technological transformation does not exist without drastic change in the social mind” (ECHEVERRÍA, 1999: 12), the author would be conceiving E3 to be beyond just the technological infrastructure; he is also thinking of this environment as an area in which social relations are established. It is important to clarify that the three environments are not considered to be excluding ambiances; they are situations that exist together. E1, E2 and E3 are superimposed instances that constitute the contemporary society in all its complexity. It is clear that by being different instances they have their own specific features that are treated by the author as distinguishing properties of E3.

These distinguishing properties are studied³ through 20 lines and handled in a comparative way between ambiances E1 and E2 and ambiance E3 as shown in the figure below:

Figure 1: Properties of the first, second and third environments

E1 and E2	E3
Proximal	Distal
Local	Reticular
Material	Informational
Presence	Representational
Natural	Artificial
Synchronic	Multi-chronic
Extension	Compression
Physical mobility	Electronic Fluency
Slow circulation	Fast circulation
Air establishment	Air establishment
Stability	Instability
Local	Global
Penta-sensorial	Bi-sensorial
Natural internal memory	External artificial memory
Analogical	Digital
Semiotic diversification	Semiotic integration
Homogeneous	Heterogeneous
Nationality	Trans-nationality
Self-sufficient	Interdependent
Production	Consumption

We can say that the scenario shown is part of the third stage from the great mediamorphosis that is the most appropriate word to indicate the transformations in the means of communication. Roger Fidler, at the time he wrote *Mediamorphosis. Understanding new media*, in the mid nineties, said he was living in the middle of a third great mediamorphosis, which had begun with the use of electricity in communications at the beginning of the XIX century, the invention of the electrical telegraph is one of those responsible for the great transformations and expansions in all of the three communication means domains – these domains are related to oral language (first mediamorphosis), written language (second mediamorphosis) and digital language, which uses numbers to encode and process information and that was developed to facilitate the communication between machines and their peripherals and, consequently the communication with and among human beings. The author defines it as the transformation in communication means that usually occurs through the complex integration of competitive and political necessities and pressures as well as through social and technological innovations

(FIDLER, 1997). This would then be a unified way of contemplating the evolution in communication means, identifying the new configuration that arises, neither replacing nor “killing” the old ones, since these will be reconfigured and/or increased, repaired (BOLTER & GRUSIN, 1999), and will continue to develop and to adjust themselves in accordance with future innovations.

The third stage of the great mediamorphosis would have digital language as its most powerful agent, which achieved wide dissemination by means of Information and Communication Technologies (ICTs) and of a number of multiform devices that derive from this source. The ICTs reached a level that many researchers call “ordinary” by reason of their extensive use in everyday life (GRAHAM, 2004; HERRING, 2004; LIEVROUW, 2004), considering the aspect of social representation as well as the technical aspect affecting the production modes in all knowledge areas and professions, the social relations themselves, life styles and even the urban space aspect.

More specifically, the field of journalism was largely affected by a number of modifications that occurred due to the development of ICTs in the late seventies. First, in production, in the processes of preparing printed newspapers, in the production of video news and audio news that started to use computers, totally or partially adopting the use of digital technology. Now with the development of the Internet, journalistic products developed with the new digital support are arising, structured in a reticular shape.

2 ■ MEMORY IN JOURNALISM

On studying the journalism specially adapted to the Internet that developed for the web, we can establish the evolutionary outline of web newspapers (PAVLIK, 2001; SILVA Jr., 2002; PALACIOS 2002), and establish in this case the six characteristics that compose these products: hypertextuality, interaction, multimedia, customization, memory and permanent updating (PALACIOS, 1999; PALACIOS 2002b; MIELNICZUK 2003).

With regard to evolutionary progression, the stages are divided into three groups: first, second and third generation web journalism⁴. In first generation web journalism, the available products are either partial or total transpositions of the content in printed versions. Second generation products, although tied to the model used by printed newspapers, represent an initial experiment in attempting to exploit specific net

characteristics. With third generation products the scenario starts to change, due to the appearance of initiatives that go beyond the idea of a web version for an existing printed newspaper, comprising a stage known as third generation web journalism and that correspond to:

“a more advanced stage of the technical infrastructure of telematic nets as well as a time when we have an expansion of the installed base and an increase in the number of users. On the other hand, there was a technical evolution that made possible faster transmission of both sound and images, a growth in the number of users, that can justify investments in the sector” (MIELNICZUK, 2003: 39).

In third generation journalism designed for the web, we have the use of advanced information technology resources in the development of journalistic products that will enable the use of the characteristic given by the supporting media (PALACIOS, 2002). The readers/users are very familiar with this technology, and its cost is becoming more affordable day-after-day.

As far as the six characteristics mentioned, the notions of continuity and breakaway are exploited by Palacios, when he argues that not all the characteristics of web journalism represent actual new aspects. Many of them already existed in other media and their utilization is just a mere continuity in the new supporting media. The author says:

“The multimedia aspect in web journalism certainly represents continuity if we consider that in TV we already have an assemblage of different media formats (image, sound and text). Nevertheless, it is also clear that the web, through its facility for assembling different formats, potentializes this characteristic. The same is true for Hypertextuality that can be found in earlier digital supports like the CD-ROM but also, *avant-la-léttre*, in an object as old as an encyclopedia. Customization is highly potentialized in the web but it already exists in prior supports through audience segmentation (target-users). In printed journalism this occurs, for example, with the production of special sections and supplements (cultural, kids, women, rural, sports, tourism and so on); in radio and in television, customization is obtained by the diversification and specialization of program schedules and even of the broadcasting stations (...)” (PALACIOS, 2002).

The breakaway, on the other hand, would be in the interruption of a certain model, which is caused by a higher degree of achievement of potential in the use of a certain characteristic that would cause a change in its function or even the creation of new possibilities. According to the author, on the web:

“the linkage of memory to immediate hypertextuality and interaction, as well as the absence of limitations on information storage, would potentialize Memory in such a way that we consider it correct to say that we have in this combination of characteristics and circumstances a breakaway in relation to prior media supports. We again insist that when we make this kind of statement, we are referring to *possibilities* that are unfolding for Producers and for Users of the Journalistic Information. The reality of the journalistic praxis on the web moves closer to or farther from these unfolding possibilities according to the factual contexts and products now available on the internet” (PALACIOS, 2002).

Studies carried out on the use of files in newspapers (MARCOS RECIO, 1999; DÍAZ NOCI, 1999 and GONÇALVES, 2000) demonstrate how the possibility of digitalization and the use of nets changed the use and functions of files in journalism. Among the significant changes is the fact that they are no longer a product exclusively for internal use, for the purpose of assisting in production or possibly helping academic researchers and other special users, but are now available for readers/users as well. According to Machado,

“Hierarchic logic, centralized and closed within a core is still in use in databases from commercial services or as a file of printed periodicals available for public access; on the other hand, the digital newspaper allows a decentralized and linear news storage model. In publications like *El Mundo Digital*, from Madrid, Spain for example, the user, through the utilization of an internal search system, can track down many sections” (MACHADO, 2002: 53).

Another example that we can mention is the newspaper called *The New York Times*, whose digital Internet database has available for online sale, in PDF format, editions dating back to the beginning of the newspaper. Initiatives like this one, even by means of paid services, are possible only because of the information digitalization processes. Journalistic files are no longer restricted to their use in journalistic production or as rare documents to be used by researchers (historians most of the time), but are available to ordinary readers/users. As a solution that derived from the availability of files, some web newspapers have links in current articles that will lead to information about the same subject that was available beforehand; that is, we have contained in the current article instantaneous direct reference to the memory. We can say that solutions similar to this one form what can be called contextualized journalism (PAVLIK, 2001; 2005).

3 ■ DATABASES AS A MECHANISM FOR THE ESTABLISHMENT OF AND ACCESS TO SOCIAL MEMORY

The consolidation of the internet as a new technology and social praxis characterized as an environment and an information, communication and action system used by several different social sub-systems (PALACIOS, 2003; STOCKINGER, 2003), among them the mediatic – which also consolidates a type of journalism distinct from the net – facilitated the rise of a new status of database (DB) use in digital journalism, thus making feasible the use of memory in web-designed journalistic products.

If the appearance of the use of databases as a tool for journalistic work in the seventies represented an innovation in obtaining information for enlarging context and depth in news and articles – besides being one of the first technologies used for content delivery (GUNTER, 2003) – three decades afterwards, the use of the so called databases in the management of digital products is considered to be potentially capable of differentiating digital journalism from the traditional modalities of the printed press, radio and television (FIDALGO, 2003; 2004) and is even being acknowledged as a new format for digital journalism (MACHADO, 2004) and also a new metaphor (BARBOSA, 2004).

And as a new format for digital journalism in this third environment, according to Machado, one of the functions databases have is precisely to provide a memory of already published contents. In this way the functions of documentation and updating the social memory that is peculiar to journalism takes on a new outlook regarding access facility, language familiarity, low storage costs and hence, a greater democratization in the use of information considering the decentralizing and wide-open features of digital networks.

Fidalgo argues that journalistic products stored in databases differ from those online by not having a fixed edition. This occurs due to the fact that an edition represents one of the possible configurations produced by the database. By asserting this, Fidalgo establishes a distinction between an online newspaper only using HTML language – a fixed product that uses models and templates – and another one that makes use of databases. In this latter case, he says, the result is always a specific search that depends on the group of news items inserted in the database and the structure of the database, which specifies the way in which different news items are displayed, linked in the online presentation. The college professor from the *Universidade da Beira Interior* (Portugal) also indicates a change in the journalist procedures regarding the incorporation of decentralized

production routines, the unlimited adding of included topics, and database maintenance; he explains that “the past stipulates and determines the present to the exact extent that it can be retrieved” (FIDALGO, 2003).

The use of memory in The third generation of digital journalism creates record files capable of presenting parameters for increasing the anticipated coefficient of the uninterrupted flow in information in its different formats (text, image and sound). At this point we have to bear in mind that since the memory characteristic represents a breakthrough in digital journalism, it will be at the same time multiple, immediate and cumulative (PALACIOS, 2002). Machado adds that:

“The complete incorporation of database logic by the journalistic organizations depends on the interconnected use of the information-structuring model function, a place for the creation of narratives and one for memory activation. With a simple content file of past publications, even if it is organized in a database format, the journalistic company is still offering its users a set of isolated items, resulting from predefined searches for key-words or dates, for example” (MACHADO, 2004, p. 12).

According to the author, in order that the principle of transcodification – as explained by Manovich (2001: 27-28), this enables all new media objects to be translated into other formats – be applied to digital journalism, the DB must serve either as a space for the experimentation of different multimedia narrative forms or as a source for updating the present experience in the light of the stored memory. We should observe that the users have an important role in this scenario because, while acting as collaborators in content production, they are also helping in the social memory construction process together with the journalists.

Despite considering that in many journalistic companies databases are put aside even with regard to production economy, Machado emphasizes that the structuring of the journalistic content models in databases represents an attempt to make them conform to the characteristics of contemporary memorization systems.

Data obtained from the comparative study *Mapping and characteristics of Brazilian online journalism: a comparative study of 2001 and 2004 surveys*⁵ demonstrate that the concern of the Brazilian companies in investing in the utilization of some storage form of web-available journalistic information is largely significant, as illustrated by the charts below:

Table 1: Memory characteristic utilization in 2001

Circulation	Own files?	Which period?		Which search system?	
		Up to 7 days	More than 7 days	Word	Date
More than 100,001 (4 newspapers)	4 (100%)	-	4 (100%)	3 (75%)	3 (75%)
50,001 to 100,000 (4 newspapers)	4 (100%)	1 (25%)	3 (75%)	3 (75%)	4 (100%)
25,001 to 50,000 (15 newspapers)	10 (67%)	2 (13%)	8 (53%)	4 (27%)	10 (67%)
001 to 25,000 (21 newspapers)	12 (57%)	1 (5%)	11 (52%)	2 (9%)	11 (52%)
Total	30 (68%)	4 (9%)	26 (59%)	12 (27%)	28 (64%)

Table 2: Memory characteristic utilization in 2004

Circulation	Own files?	Which period?		Which search system?	
		Up to 7 days	More than 7 days	Word	Date
More than 100,001 (4 newspapers)	4 (100%)	1 (25%)	3 (75%)	4 (100%)	3 (75%)
50,001 to 100,000 (3 newspapers)	3 (100%)	-	3 (100%)	3 (100%)	3 (100%)
25,001 to 50,000 (14 newspapers)	13 (93%)	1 (7%)	11 (79%)	7 (50%)	12 (86%)
001 to 25,000 (22 newspapers)	19 (86%)	3 (14%)	15 (68%)	9 (41%)	13 (59%)
Total	39 (91%)	5 (12%)	32 (74%)	23 (53%)	31 (72%)

Observing the tables, we can see that the use of files has increased significantly: in 2001 it represented 68% of the publications and in 2004, reached 91% of the publications. A peculiar aspect observed is that files are present in both periods and in all circulation ranks, and furthermore, the increase in utilization is proportional to the increase in the publication circulation numbers. A preliminary hypothesis that can be derived from this observation is that because they require advanced information technology solutions that represent higher costs, files are preferentially used in larger companies (those with greater circulation numbers).

4 ■ FINAL CONSIDERATIONS

If in the beginning the search for information had to be done personally in the file room and the research process was sluggish, now memory access is instantaneous and can be performed from any place; all one needs is a computer or any other device connected to the internet. And furthermore, it is worthwhile remembering that in the case of journalism, the network technology collaborates by giving a permanent nature to the collected information, in contrast to the ephemeral nature that characterizes the production of journalistic work in other modalities like print and even in the electronic media, since public access to files in these media is very difficult, and in most cases (like on TV and radio) the files become almost inaccessible.

The Internet, according to the Portuguese researcher João Canavilhas (2004), facilitated information access while simultaneously doing away with time and space limitations.

“On one hand, the access becomes global as the information is available on the web. On the other hand, databases enable search processes to accelerate and become more refined, making faster and more accurate the process of reaching specific information available on millions of web pages. This information source represents a dynamic, well-organized and navigable social memory” (CANAVILHAS, 2004, p. 4).

To the author, the challenge now to the Internet - and we add to digital journalism - is to improve its capabilities of memory through the development of databases and interfaces similar to those models already in use by mankind in its daily contact with reality. The researcher believes that storage formats and file retrieval on the Internet, especially with reference to the many journalistic sites, should maintain utilization of syntaxes analogous to the other structures used in daily life, thus making the assimilation of new technologies a more natural process. “It is true that the interfaces are not impartial prostheses, but the success in using the Internet as memory will greatly depend on the capacity to make a congenital rather than an acquired integration” (CANAVILHAS, 2004: 7).

The information digitalization processes are providing new configurations for journalistic products, not only by interfering in information presentation formats due to the support provided but also by making possible the appearance of new functions for journalistic information. The joke in the journalistic sphere that “today’s newspaper

is tomorrow's fish wrap", does not have the same force anymore. "Old" information takes on new functions in the third environment: it becomes easier to access, has a lower cost and is now available to ordinary users in a more inclusive way, contextualizing the present news and also configuring (in some cases reconfiguring) social memory through the journalistic discourse. And, in this scenario, journalistic information becomes a democratizing factor that allows us to have easy-to-reach elements – either by their access facilities or by their language – to understand and to analyze social processes, contextualizing them historically.

NOTES

- 1 The author defines environment as: "what is around our bodies, at our sight, or all different implementations achieved to enlarge our immediate space" (ECHEVERRÍA, 1999, p. 45).
- 2 Echeverría explains that there are some other conceptual proposals for names for what he calls third environment. In this work we will only mention them without making any profound study of them. The words are: global village, third wave, cyberspace, information society, electronic boundary, virtual reality, interconnected mind.
- 3 Due to limitations related to the size of this text, the distinguishing properties will not be developed but only mentioned.
- 4 The Word generation was chosen because it better expresses the meaningful set of solutions adopted by web newspapers, being representative of a certain period or stage in their evolution.
- 5 The work presents a comparative study between two surveys carried out in 2001 and 2004 respectively, which aimed at identifying the main resources available in the net and used by Brazilian journalistic publications specially developed for the web. The first stage of the survey took place between August-2000 and August-2001, made by the Online Journalism Research Group (FACOM/UFBA). The second stage of the survey was carried out in the months of June and July 2004 and was accomplished by the Digital Journalism Group (FACOS/UFSM), using the same methodological procedures as in the 2001 survey.

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