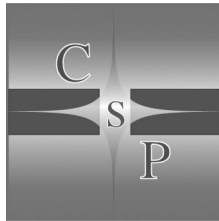# Literatures in the Digital Era:
Theory and Praxis

Literatures in the Digital Era:
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Edited by

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INTRODUCTION

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Hyper-technologies

Technologies, ideologies and cultures have been linked throughout the history of humankind. Nowadays, the Global South sees the so-called "West" not only as a physical place but as a virtual space; it is not so much a geographical or political division, but a social one, depending on class and generational boundaries: a working place, a space created by ICT. Statistics on the number of Internet users worldwide show the Global Digital Divide between those with regular effective access to digital technologies and those without, which puts into question the democratic venue for the globalization of knowledge and knowledge transfer. While we wait for this potential to be realized, at the present time just 16,6% of the world population has Internet access, ranging from 3,5% of the population of Africa to 69,4% in the United States. Any discussion on closing the Digital Divide deals fundamentally with both the impoverishment and empowerment of people; it is the key to both social equality and mobility and to economic equality and growth.[2] To be or not to be (dis)connected

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[2] Craig Warren Smith. *Digital Divide.org*, http://www.digitaldivide.org, [accessed March 10, 2007] and "Internet Usage Statistics. The Big Picture". In *Internet World Stats,* http://www.internetworldstats.com/stats.htm. More information in

from one's own society or from virtual societies—that is the question.

The same question could be asked of the Humanities. Writers and intellectuals are often cautious about new media technology in general and online scholarship in particular, perhaps because the Humanities are very much the culture of the solitary scholar. Any utterance of the word *hyper* means *danger*! They feel threatened and intimidated by these new kinds of commercial wars for the control of information and access to knowledge (e-reviews, data bases, free books, etc.), by new virtual services which become more highly valued the more they are shared by virtual scientific communities (the *Google Library Project*), and by new communication structures based on collaborative human expression (such as *Wikipedia*). And this is all taking place against a background of language "confusion" (the "Global English Babel" that has arisen from the homogenization of cultures through media convergence), of legal disorder (the copyrights debate) and of a dramatic reduction in lexical resources, which benefits sign codes other than the written language. At the same time, the idea of a professional instrument providing entertainment for the rest of us is discomfiting.

The debate about relations between literature and technology is now over. Only in the field of literary studies does this antagonism between the two still persist; in the other arts, such discussions are already part of the past; Humanistic Informatics is no longer an oxymoron these days.

Books may be endangered, but not so verbal communication, since we have never had so many opportunities to express ourselves and read what others express. What is happening is that the heritage from literary traditions based on authors, books and, for the most part, paper, is also playing a major role in *hyper*text, which is an actual referent and not just a metaphorical one. Scholars such as MacLuhan, Bolter or Chartier have demonstrated that books are first and foremost a kind of technological artefact—a machine to be used and a product to be bought and sold; this is the economic dimension of text-supporting materials.

If books, on the one hand, are indeed teaching and communicating *machines* (see Landow), then the "electronification" of universities and research institutions does not imply technologizing them or applying further technology to them in some way alien to their essential spirit. The future will, in fact, be collaborative, because new media can support or facilitate the traditions of scholarship in the humanities, which are, namely, those of reflection and reflective reading (see Tötösy). This is the reason why the most prestigious institutions, conscious of their past and future role

in the sharing and distribution of knowledge, have invested time and financial resources in organizing sources to provide users and clients with easily-accessed data networks, including bibliographical data in virtual libraries, network encyclopaedias[3], digital periodicals and magazines and online data banks. We are reminded of the decline of the monasteries when they lost control of the process of reproducing written work, and the success of the alliance between universities and printers. Nowadays, if technological domination and control by new managers of information and knowledge is to be avoided, certain precautions and initiatives should be taken (such as Open Access for scientific publications).

On the other hand, traditional humanistic scholarship has always involved networks that existed in the minds of scholars. Texts have never in fact existed in isolation but form part of a diachronic and synchronic series of texts; we have always been tempted to expand the text by supplementing our reading and writing with such activities as adding notes, glossaries, illustrations and indexes, to shape a network, traditionally on printed sheets and nowadays on screens. Electronic hypertext—a recent form of prosthetic memory—can create new forms of writing, just as the Humanists did with their notations.

Traditionally, the mobility and storage capacities of supporting materials have been a key factor in the adoption of writing technologies. The consequence of technologies that have accelerated the diffusion of writing and reduced the time between production and consumption has been to succeed in modifying the mental processes involved in communication, information and education. Nowadays, this acceleration is taking place along a low-cost superhighway that results from electronic technology, and we cannot stop it.

The contributions we present in this volume analyse some of the social, cultural and cognitive transformations involved in new writing technologies and the generation of new models of reading literatures.

Hyper-identities

As the speed of communications across geographical space increased throughout the twentieth century, space became de-territorialized. More recently, with the introduction of networking technologies, it has been replaced by a kind of non-geographical space: *cyberspace* or *hyperspace*.

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[3] See our contributions to the *Comparative Literature in the Age of Global Change*. In *Encyclopaedia of Life Support Systems (EOLSS)*, Oxford, Eolss Publishers, UNESCO, http://www.eolss.net.

Diasporic movements resulting from the expansion of global economies are able to share interests and common culture through computer-mediated communication. The immediate effect has been to create a sort of illusion of participation as both physical and hierarchical distances between communicators have been removed. But this is just an illusion, a *simulacre*.

In the past, of course, it was the advent of the printing-press that had such a defining impact on our individual and social structures; in present times, electronic technologies have produced a similar effect. Nowadays, networking technologies provide new ways of organizing our knowledge and our communicative capacities. Different kinds of written technologies allow us to communicate rapidly and non-presentially, liberated from the restrictions of time and space. As a result, space, time and knowledge are all managed by electronic tools.

The truth is, we have always been involved in some situation or other in which cross-cultural communication takes place: in former times, it might have been the wholesaler negotiating bundles of books in the port, the monk copying oriental manuscripts in the monastery, the humanist fingering the latest work printed in Italy, or a group discussing a new translation in a society salon. Nowadays, such communication takes place at a much faster pace, twenty-four hours a day: we answer e-mails in three or four languages, work on the same screen with colleagues located all over the world in different time zones, consult documents stored on the other side of the planet, and so on. Everything is being done at a more rapid pace and our lives have become ever more hectic. With this constant "cultural clicking", in what kind of culture can we feel rooted?

Indeed, we could be defined by the sedentary lifestyle we have adopted, with nomadism belonging to a previous stage of evolution, though still a constituent one in human memory. We are both sedentary *and* nomadic. The change from a way of life based on hunting (in the Palaeolithic period) to an urban culture (in the Neolithic period) was a crucial time in human evolution: the wider world was not only situated on a horizontal plane (geographical and physical and always at a distance), but also, to a large extent, on a vertical one (temporal, metaphysical and transcendental). It was the time when human beings began to dig graves they could revisit again and again, days, months or years afterwards. By using and extending these images and the metaphors they support, it may well be that virtual space requires a new definition of the horizontal and vertical dimensions of inter-subjective identities, in accordance with current technological and social changes. For, paradoxically, we can move, surf, navigate, roam and cross all kinds of frontiers by staying at

home and sitting still in front of our screens. Moreover, in a literary context, we are able to explore archives and penetrate deeper and more thoroughly into the strata of hypertext.

In short, nowadays minds tend to be nomad and bodies tend to have a sedentary lifestyle. We may dare formulate another paradox: if orality went together with nomadism, and writing with sedentarism, perhaps that is the reason why e-writing is using orality as a model for communication. In any case, we should be aware of metaphors we use.

Since Kerckhove (1997)[4], it has been noticed that web technologies produce the sensation of loss of our own personal and defined limits as we digitally project ourselves outwards. The first comparative international study of a variety of communities in different geographical locations [5]shows that there is a move away from densely-knit tightly-bounded groups to diffuse loosely-bounded networks. The Internet is not a self-contained world; it is being used in much the same way in many parts of the globe. New technologies, and the Internet in particular, are reshaping the geography of communities, especially dispersed ones, by providing them with the means for inexpensive and convenient communication; at the same time, there is a shift away from the group towards networked individualism, which complements, rather than replaces, traditional communities: e-citizenship has both a local and a global dimension.

All identifications are technologized, that is, achieved by means designed to secure the subject in relation to something other than itself: a photograph, a publication or a web-page. With the proliferation of e-mail addresses, public distribution lists, personal data protection and processing, open or closed hot lines, real or pseudo-weblogs, etc., both private and public boundaries are being redefined, as happened in the past at certain crucial junctures of history; we are reminded of the transformations of private and public boundaries implemented by the absolutist monarchy in France during the so-called *Ancien Régime,* and those brought about by the French Revolution for the *Nouveau Régime*. Blogging, for instance, both as a cultural genre that has *retooled* the traditional diary, and as a social action, is also reacting to the shifting demarcations of the boundaries between private and public domains, and is an indication of the way technology both limits and opens up readers'

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[4] Derrick de Kerckove, *Connected Intelligence. The Arrival of the Web Society.* Toronto: Somerville House Books, 1997.
[5] B. Wellman et al., "The Social Affordances of the Internet for Networked Individualism", *Journal of Computer Mediated Comunications*, 8 (3) April, 2003. http://jcmc.indiana.edu/vol8/issue3/wellman.html.

choices, as Ringrose and Sassón-Henry demonstrate in this volume. Warbloggers themselves may also derive personal gratification from the risks involved in politically subversive acts of self-disclosure in the context of an emerging model of Internet-based economic production that is peer-driven or based on common behaviours. Thus, the appearance of computer-mediated or virtual communities is providing a crucial area of research in the Humanities, particularly in certain literary domains.

On the other hand, at the same time as our sense of identity begins to unfold, there is a weakening of the structure and concept of the nation[6]— that fixed product of the printing-press era. Books, as a technology, served nation-states through the use of national and unified languages; moreover, even nowadays, our very conceptions of what literature is are linked more to writing, print and European nations, than to orality, manuscripts and the Romanic era. Nevertheless, things are changing.

Electronic technologies, however, are serving other kinds of communities that are not so much multilingual as Global English-speaking, a phenomenon reminiscent of the *koïné* that substituted Latin prior to the formation of nation states. Returning to the data on Internet use, we note that at a global level this shows that 35,8% of the online population use English, 64,2% are non-English-speakers, and 37,9% use a European language other than English.[7] But this is a significant paradox because more and more countries are developing models for information literacy as an integral part of their education curricula.

We may ask ourselves if the Internet is likely to become the steamroller of globalization for languages and their literatures in the same way as minority languages in some European countries were to a large extent steamrollered by the advent of television. It may be possible to "regionalize" Internet services on the basis of linguistic and cultural criteria, but the fact remains: neither the 300 million Spanish-speakers nor the approximately the 300 million people in the Eurozone are sufficient in number to set up their own markets and supply them with their own products.

But establishing an identity does not only depend on language. Literatures, as bearers of cultural memories, form an integral part of our cognitive universe and play a significant role in making our everyday experience of the world an aesthetic one. But literatures cannot be

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[6] See Dolores Romero and LEETHI Group (eds.). *Naciones literarias*. Barcelona: Anthropos, 2006.
[7] "Global Internet Statistics (by Language)" in *Global Reach*:
http://globalreach. biz/globstats/index.php3, [accessed March 10, 2007].

assimilated exclusively and out of necessity to bounded and monolithic national units. This has always been a singular error. What is more, in the digital era, in virtual spaces with electronic technologies, national boundaries have neither an epistemological framework nor social validation. Our new global cultural economy can no longer be understood in terms of centre-periphery models. Notions such as reception, mediation, hybridity and cultural identity will no longer be functional for the understanding of virtual migrations, which need to be understood as a complex disjunctive order. From now on, we should be attentive to all kinds of virtual migrations and phenomena related to transfer and translatability: *Hyper* is *trans*.

Hyper-literatures

Within this process of converting the digital medium to a privileged space for information, communication and culture (in this sequence), we observe that two of the greatest impacts on literature arising from technology have been, in the first place, electronic editions for didactic and scientific purposes, and, secondly, the advent of digital literature, that is, literary works that have been created specially for the computer.

E-editions, in fact, have generally been widely accepted by mainstream literary scholars, who were otherwise far more sceptical about the relevance of other major aspects of the digital humanities, such as computer-assisted stylistics, authorship studies and learning activities. The critical archiving of texts using electronic media is the implementation of an underlying philological model of the systematized collection of literary documents and related data, with the object of preserving the text as a semiotically-transmitted *reality* and making it available for further use, not only for literary studies and other interests related to the humanities, but also as a ready source of information for other less exclusive publics (see Skulj). The analysis of writing processes and literary geneses, or comparative genetic criticism, could be one of the most useful applications of digital media in literary studies, which, by their very nature, are essentially organized in a plurivocal, inconclusive and multi-linear way (see Van Hulle). Moreover, according to post-modern textology (which presents literary texts not as static, self-enclosed monads but as an open-ended writing and reading process in which meanings and subjects are articulated dialogically), scholarly editing by electronic tools may manipulate the historical profile and relevance of past literary works and secure their permanent presence in ever-changing reading repertoires (see Juvan). It may seem paradoxical that it is computer-generated *virtual* cyberspace

that meets post-modern efforts to restore the *concreteness* of historical presence. In fact, in the search for text-centred editions and text stability, scholars have discovered multimedia editions and a multiplicity of hypertexts. However, certain precautions should be taken: there is always the risk that a kind of cacophony of e-archive data may overshadow what is supposed to be of real importance, namely, the effect of the text's historical presence.

In fact, it seems that there are two main demands from scholars. First, we need a clear and consensual definition of what is an e-edition. Even if texts on screens look alike, there are profound differencies in quality and, even worse, standards and tools for e-editing are so different that a full-scale electronic comparatist editions is not possible. Strictly speaking, there never was a specific standard of editing in the realm of Comparatism, but it is time to gather the fruits of expanding and expanded electronic textualities and to look for compatible interactive tools and basic markup standands.

Second, scholars are demanding for each reader a more personalized and better adapted working area on the screen for the sake of creativity, diversity and dynamicity. In open-ended electronic editions, text control should be passed to its users, according to the readers' work and interests, readers' responses, readers' local notes, links and quotation. A paradigm shift is affecting not only literary criticism, but also more particularly textual criticism, focusing on readings rather than on authors or texts' motions.

Electronic editions for scholarly purposes involve specialized knowledge of text editing and electronic language processing. In digital text production, an unprecedented stage is introduced into the chain of information processing: the mediation of codification by mathematical programming—the double dimension of process and product (see Paixao). As we start to work with digital processing, layers of information acquire enhanced technical possibilities in the intersections between code and presentation. This is because the methods for codifying language vary considerably in spirit, and they are not based purely on immediate visual correspondence.

Digital literature, however, has its own characteristics: firstly, virtual text can be multi-linear, multimedia, multiple in content and in form, dynamic, and connected (linked), unlike other texts which, although edited in digital or electronic format, are created simply to be reproduced by printing. Secondly, a virtual text is not created for paper but for the screen and, as such, is constructed on at least two levels (the programming language and the operating system). So, unlike printed text, the text we see

on the screen is not the text as it is written. Furthermore, it can be rewritten, reorganized, linked, provided with graphical designs, pictures and even sounds.

How do we account for the innumerable possibilities of juxtaposition and interference of codes, the imminence of plurality, the prodigious and somewhat awe-inspiring impression produced by electronic textualities? We have a first page—or screen—that we may call visible, with its languages of forms, its interactions, its iconic denseness, its movements of transformation, adaptation and interactivity; in another space, that of the programmers (space of another visibility), we have the source-code, which is precisely what makes that first page visible, manipulatable and, as a consequence, endowed with a degree of coherence. This duplicity between the two spaces is not reduced to manichaeist dichotomies; one does not have priority over the other (see Dos Santos).

Scholars seem to be in trouble. There was a time when criticism made use of linguistic tools to analyse new media such as cinema or television, simply because they were available and familiar, with no consideration given to the novelty of codes and materials. In the same parallel way, early hypertext enthusiasts rallied behind them postmodernist theorists, claiming they subverted the tyrannies of linearity in old-school left-to-right print, fixed meanings and one-way flows of signs from subject-author to object-reader. It is time to create more specific tools for electronic environments, and, as Lampropoulos proposes, the toolkit we are in need of should be made up of several critical genres, all equally appropriate.

In order to understand this new process of reading and writing, early scholars of ICT resorted to the critical tools and metaphors available to them at the time. These were mainly post-structural conceptions, focusing on intertextual relationships as key concepts for defining literarity in the twentieth century. The very notion of hypertext is indebted to these a priori definitions of literature.

In this context, notions such as collaborative writing, the rupture of linearity, demystification of the canon, the democratization of art, new humanism, interactivity and open-endedness in literary works have gained popularity with the incursion of the concept of hypertext in the field of literature created specially for the hypermedia. However, there is a lack of unanimity with respect to their meanings, due to the multiplicity of co-existing definitions. These notions are discussed critically in several contributions to this volume.

In particular, according to literature theoreticians in the euphoria of the early stages of the process, the Internet appeared to bid a final farewell to authorship. The conceptions of collaborative writing convert the already-

discussed dictum of *death of the author* to *the birth of the reader,* in an oscillating movement, in much the same way receiver and empirical criticism did. More recent positions are definitely more differentiated and have also (re-)accepted the author online (see Hartling) as new forms of authorship being created on the Internet *dispositif*: the new "sharing economy" refers to large-scale Internet-based projects resulting from the participation of large numbers of individuals. Nevertheless, there are apparently more literary-critical and academic texts *on* collaborative projects than there are projects themselves.

Furthermore, because of the lack of concepts and definitions, metaphors could take us a long way. For instance, the spatial metaphor of the network used for defining text as a hypertextual system has been used to represent other spatial metaphors inherited from intertext definitions[8], such as archive, archaeology or series. That is to say, a collection of horizontal spatial images (synchronic, such as *navigating, surfing, linking, jumping on the screen*) have translated a diachronic (vertical) conception of literatures.

Suddenly, as if by a miracle, a very abstract, theoretical and not so easily-handled concept such as intertext could be (re)presented in an actual/virtual mode by means of electronic technologies. Going with the flow, Landow and Ben Porat have explored all manner of associative multi-media cultural possibilities in hypertext form by studying how readers move by way of arbitrarily chosen links towards unrelated segments that do not easily yield an interpretative hypothesis. For Ben Porat, the aim is to gain an understanding of the cognitive processes involved in the actualization of mass media/literary canon intertextuality in its many forms, with the focus on sharing information and facilitating interaction between readers and texts as a part of literary hypertext theory

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[8] Some of these were used as starting points for exploratory and premonitory works about hypertext. Theoreticians like George Landow took theses such as: "*Il n'y a pas d'énoncé qui n'en suppose d'autres, il n'y a pas un qui n'ait autour de soi un champs de coexistence, des effets de série et de succession, une distribution de fonctions et des rôles.*" (Michel Foucauld. *Archéologie du savoir.* Paris: Gallimard, 1969: 131); "*Il n'est de texte que d'intertext.*", (See Charles Grivel. "Thèses préparatoires sur les intertextes" in Renate Lachmann. *Dialogizität*, München: Fink, 1982: 327-48); "No text is read independently of the reader's experience of other text." (Umberto Eco. *The Role of the Reader.* Bloomington: Indiana University Press, 1984: 21); "Reading a text is necessarily the reading of a whole system of texts, and meaning is always wandering around between texts." (Harold Bloom. *The Anxiety of Influence. Towards a Theory of Poetry.* Oxford & New York: Oxford University Press, 1973: 107-8).

and cognitive studies.

However, one paradox stands out: the supposedly solid ground of post-modern theory that seemed to coincide with the fluidity of cyber-realities has gradually led to cybercriticism becoming, in part, a kind of easy theory. The critics' attention has primarily been focused on a theoretical reflection on the consequences of applying ICT to the processes of composition, reception, distribution and teaching of literature. At the same time, however, development itself and the actual implementation of the possibilities have been drawn-out and slow, and this has had the effect of moderating and delaying the course of events (see Borràs).

If we take the story of Echo and Narcissus as a possible paradigm for the relationship between text and reader and the mutual inclusiveness of the audio and visual image (see Scrivner), we soon see limitations in hyper-systems over which we have complete control: interactive art, it seems, does not allow for any less tyranny or any more conceptual freedom than do standard, non-interactive media, since art only exists as the conceptions of it that we hold in our heads. Furthermore, some scholars are beginning to wonder if digital literature might remain in an epigonal situation, comparable to that of the literary *avant-garde* of the twentieth century, since this was particularly noticeable in the early days of textual experiments on electronic supports.

In a certain way, many of the tendencies of classical and traditional literature are continued in the Internet *dispositif*; authors reconsidering the pre-modern and post-modern divide in this volume have observed the presence of a kind of hypertextual structure, even a kind of virtuality, in other supporting materials originating from different cultures or earlier periods of history: these range from manuscripts from the European Middle Ages that require a significant heightening of sensory activity as the essence of the work as a whole is regained through electronic textuality (see Borràs) to Arabic calligraphy as a writing system that avoids linearity, includes pictographic elements and re-processes a pre-written text in a new space (see Abdel-Messih).

Indeed, electronic textualities are characterized by new kinds of connectivity. Links and lexias create a networked structure (link-and-node hypertext, made familiar by the World Wide Web, blogs and Wikis), while other kinds of link allow texts to expand, revealing additional information hidden in their midst—Ted Nelson's *Stretchtext,* for example (see Landow). With a more precise focus on connectivity between paratactic structures or variations in hypermedia narratives, it is possible to analyse the resurgence of new rhetoric figures that contribute to the volatility of meaning and the constant reconfiguration of the narrative sequence (see Pano), or the

consequences of hypertext and animation on the meaning of text, using the principles of narratology for classifying links (see Saemmer), or even the relationships between hypertexts and short story collections (see Natsina).

In other words, we should consider digital texts from a strictly material perspective in order to understand their significance in the material transformation of the production of written language: the shift from tactile to digital, from physical to code, from hard to soft media, producing text with distinctive qualities (see Paixao). C-books are not merely vehicles for linguistic signs; because of their content and physical properties, they play a crucial role in structuring knowledge systems, co-determining generic identities and shaping writing and reading.

Rather than an incremental point in the evolution of text-production techniques, digital text is perhaps a watershed in the history of text diffusion (see Borràs). In any case, we are lacking, firstly, a unified theory of electronic textualities and electronic editing that assembles a wide spectrum of critical tools, and secondly, a common well-established and sufficiently complex standard for e-editions, e-books and e-literatures. We keep on searching for the literary specificity of all "virtual" texts.

Hyper-worlds

The word *virtual* comes from the Medieval Latin *virtualis* or *virtus,* meaning force and potency, something that is not yet actual but tends towards it. Thus, the virtuality characteristic of cyberspace not only has negative connotations ("appearance", "illusion" or "deception"), but also positive ones ("potentiality", "productive capacity").

All information, particularly written information, is a virtualization of memory actualized by reading. It could be said that a kind of virtual *hyper-reality* is made actual by being read according to subjective inferences, personal necessities and cultural references—a construction that is both social and personal. A poem, a novel and a play are all different kinds of alternative fictional worlds, built up artificially by words. But, like technology, virtualization, from the well-known myth in Plato's *Phaedrus* to the present day is often considered to be an artificial process alien to humanity and therefore not only inhuman but dehumanizing.

While it is a constant source of amazement to see our hyper-readers surfing attractive and ever-changing environments, we might do well to ask ourselves if hypertexts are being substituted in the users' minds by hyperworlds, or whether, on the contrary, hypertextual structures are always useful for understanding how virtual realities function in computer

games, learning activities or different kinds of literary performance. The two approaches have much in common and deal with similar problems.

For example, as a representational technique, cyberfictional bridges or metalepsis in literary texts are perfectly indicated for identifying fictional as well as actual realities, with neither of them having any ontological priority. An assortment of instruments facilitates the fictional immersion of readers/users, both in literary realities and virtual ones, because these are possible worlds to be explored from the positions of the narrator or the narratee: they should be indexed and analysed in order to discover any similarities and particularities which might help us re-design and re-define our electronic tools for reading and writing. As we do this, we venture to change our definition of literariness, narrativity and poeticity as a plurality of worlds. Perhaps we should go not from intertext to hypertexts, but from possible worlds to *hyperworlds*.

This is the reason why, instead of commending the miracle of hypertext and interactivity, some of our contributors have been seduced by the graphic and plastic aspects of on-screen text. Borràs, for example, focuses on the physical, authorial, typological and perceptual complexity of digital literatures that have established links with space and form; novelty would form only a part of their evolution—the written word becoming physical image. Reading based on a race for information and frantic surfing is often regarded as unpleasant by scholars, but we could consider it an immersive and intuitive activity, in which the reader is also sensitive to the graphic and plastic dimensions of the texts. All things considered, reading has always been an erratic, randomized, fragmented and non-sequential activity: these qualities are the readers' rights.

In contrast, ludology-narratology wars could be considered as a symptom of the struggle to define a new discipline that is completely removed from the predominant hypertextual or cinematic digital paradigms of the time (see Pajares). This debate actually mirrors some of the deepest theoretical concerns held in this field, such as the difficulty of integrating interactivity with narrativity. It might look as if ludology has killed the hypertext star of the nineties, when theorists rejected the Internet because it was not *really* hypertextual. In fact, not everything taking place on the Web adjusts to the classic definitions and expectations of hypertext; reader interaction may be kept at an external level, where no real changes to the story can be made. Ludologists prefer real interaction and therefore favour games, in which emergent structures mean that no playing sequence is pre-fixed.

Meanwhile, there will always be a gap to bridge: literature mainly involves words and texts. Considering the decline of television and

broadcasting in educational domains, we wonder if there will be an opportunity for electronic supports to create and share knowledge through private initiative and concentration of production, beyond the mere entertainment and information offered by television.

To start with, we have not only visual but interactive development, in which a keyboard, not a remote control, is required for reading and writing. Even though the links between language proficiency, intelligence and reasoning are far from clear, early reading seems to be the best predictor of later reading comprehension and other cognitive abilities. As Gutiérrez's assessment below shows, the processing of language takes place principally in the frontal lobe, as does analytical thinking, whereas images are processed elsewhere.

Although Internet devices seem to be the cause of a decrease in the rate of reading, the demographic group with the highest reading rates is also the group with the highest use of the Net; at the same time, the accelerating decline of readers of printed books has been compensated by an increase over the same period in the number of people practising creative writing. It could be that we are becoming illiterate just at the time when there is an unprecedented amount of textual information freely available, and people are starting to use digital media not only to read everything from news to fiction, but also to write. How can the Internet be used to foster reading habits in the population? How can it attract established authors from the world of *printed narrative*, and motivate new writers to make a living writing *digital narrative*? These are some of the questions developed by Gutiérrez. A clear differentiation should be made, however, between different types of users (domestic and institutional) and different types of reading (primary texts and scholarship), and between the nineties (see Tötösy) and the twenty-first century (see Gutiérrez).

As a hypothesis, our present-day *wreaders* could well be changing in much the same way as the type of "intensive" reader, devoted almost exclusively to a limited text corpus, was supplanted during the Enlightenment by the modern "extensive" reader who consumed a variety of printed genres.

Decoding a manuscript, taking down and unrolling a scroll, looking at a codex and comparing two versions on a desk, reading a large number of books and searching for a specific quotation, opening a hyperdocument and jumping from link to link on a personal computer... Each activity has its own *tempo*, demands its own cognitive resources, creates a life world, a mental geography, a culture—and we are all involved.

To be or not to be *hyper*

We are a long way from *hyperutopias*. Looking at the data, we can no longer trust the liberating and exhilarating picture that has been painted of new technologies: hypermedia are not really free and neither are exchanges absolutely free; web structures are not in themselves emergent, but are designed and planned, just as gas, telephone and rail networks were designed in the nineteenth century. In spite of technological achievements, we are always waiting for an *actual*, immanent and transcendental cyberspace and its virtual reality, those technological myths inspired by gothic and neo-romantic influences that were promised by post-industrial societies. The failure of e-books and the complexity of e-editing have demonstrated that our anxiety for perenniality only produces anguish for the ephemeral. In the meantime, scholars are looking for a new *text-appeal* for a generation of clickers and browsers (see Ben Porat): *hyper*-research for *hyper*-learning.

This volume consists of a selection of contributions from among those who took part in the International Seminar on *Literatures: from Text to Hypertext* in September 2006, which was held at the Philology Faculty of the Complutense University of Madrid and organized by the LEETHI Research Group at the same university and the International Comparative Literature Association (ICLA/AILC) Committee. It was an initiative entrusted to us by the then president of the ICLA/AILC, Tania Franco Carvalhal who was destined never to give us her opening talk. We have compiled this book in her memory and dedicated it to her name in grateful appreciation of the trust she placed in us.

As we vertically face our screen—the horizontal desktop of the word—we will continue to ask: open access or subscription; printed or virtual literatures; intended or unintended readings. To be or not to be (dis)connected.

PART I

HYPER-PARADIGM

MARÍA GOICOECHEA

The massive irruption of information technology in our lives has, as Marshall McLuhan already prophesized in *The Gutenberg Galaxy*, transformed the way we perceive the world around us. We could say that the mechanisms used by popular culture to assimilate the changes denote certain primitivism, as the new milieu created by digital technology is "read" in the form of myths: the myth of the cyborg, the global village, hackers rebelling against the Olympus of Microsoft, etc. For the intellectual, however, the manner in which computer science and its concepts (programming, language, feedback, interactivity, memory, reading, hard disk, etc.) infiltrate every field of knowledge needs to be thoroughly assessed, since it has taken on a dimension that seems to call for a revision of previous paradigms.

As the title of this section makes apparent, the use of the word "paradigm" and the prefix "hyper" already connote our willingness to debate the existence of a new paradigm in the field of literary studies, one that has to do with most things "hyper", including hypertext, hypermedia and the hyper-threading technology of advanced processors. But does Jauss' idea of a change of paradigm really apply to the field of literary studies? And if this were so, is the hyper-paradigm taking the lead? In any case, what does the hyper-paradigm have to offer the study of literature?

As a conceptual frame, a paradigm not only constitutes a referent, a set of criteria that readers use to judge the literariness of texts, but also a set of questions, questions that a specific situation makes possible to pose, as they emerge from the comparison between structures belonging to the "already-known" and the new cultural products. So it is a debate between the past and the present, conditioned by the cultural context in which the reader finds him- or herself. In this debate, we identify two positions or tendencies, which we are going to call the technophile and the bibliophile positions. The technophile point of view defends computer technology in

its role as generator of new forms of knowledge and cultural formations, which will give rise to a new interpretive paradigm, a new way of reading that will incorporate not only the written language but also other forms of semiosis. The bibliophile perspective, however, does not believe that the culture of the book will ever be substituted by the culture of the computer. What is a fact, however, is that information technology has had the power to make literary critics revise their old presuppositions, reread the past in the light of new interests promulgated by the new paradigm and rediscover works of literature that appear to fit better than others with new trends in electronic media, such as intertextuality or interactivity. According to George Landow, we have reached a point in which literary theory and computer programming converge and can be mutually useful: hypertext can serve as a laboratory for the testing of theory, while theory can give the programmer ideas with respect to the design and the cultural effects of computer technology.[1]

The four essays presented in this section offer different glimpses, from very varied perspectives and locations, of the present state of affairs in relation to the changes introduced by digital technology in the field of literary studies. Their writers come from the Mediterranean (Cyprus, Israel, Spain), and from the US, all nomad minds that at some point exchange places: the periphery for the centre, the new world for the old world. A dis-location also takes place in their critical stances. As we will see, the digital medium has decentred criticism and everyone has a free voice—a dislocated voice.

On the technophile side of the critical spectrum, we can situate the work of George P. Landow. In his article "Comparative Literature From Text to Hypertext", Landow explores the advantages of digital textualities for the study of literature, focusing in particular on scholarly and critical hypermedia. An important difference between scholarly hypermedia, and literary or artistic hypermedia is that in the first case the author must find ways to orient the reader, whereas in the second case disorientation of the reader is often a goal in itself. Disorientation is reduced, according to Landow, by the use of stretchtext, which expands the text while retaining the original text on the screen, allowing it to serve as a context or anchor even after the reader has activated the link.

Landow provides a practical example of the new possibilities and advantages for the study of comparative literature offered by the hypermedia, and of the appropriateness of a combined use of stretchtext

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[1] See "What's a Critic to Do?: Critical Theory in the Age of Hypertext", in *Hyper/Text/Theory.* Baltimore: Johns Hopkins University Press, 1994: 1-48.

and the habitual node-and-link. He analyses the new possibilities and modes of reception introduced by a hypertextual version of a scholarly article written originally for a print format. He asks himself the following question : "What happens when we reify the links that make it, like any scholarly or critical text, a node in a network?" In Landow's opinion, whereas in print the article stands by itself, with the exception of a few gestures that take the reader beyond it in the form of citing other texts and providing additional information in footnotes, its hypertextual form approaches Roland Barthes' ideal text: a text full of interacting networks, "a galaxy of signifiers", without a beginning or a predetermined order, without a hierarchical structure…

He concludes that hypermedia "offers a much more accurate picture of the nature of scholarly collaboration, sources, and confluences than print does", but his argument that "more is better" is debatable. Landow argues that "the electronic version makes far more information readily available than before, thus producing a richer, better scholarly work", even if this easy access to additional information makes the article less central and easier for the reader to abandon for other texts. Landow projects onto this apparent paradox of hypermedia his own notion of the ideal text, at once both rich and anti-hierarchical.

Apostolos Lampropoulos offers us a particularly meta-reflexive article, "Always Already-Known Hypertexts: A Recent Debate in Old Terms." This article could instead be entitled "What do We Actually Do When We Theorize?" as Lampropoulos uncovers the theoretical manoeuvres behind three "snapshots" of cybercriticism.

Lampropoulos' position is more critical than Landow's with respect to the hyper-paradigm and its theoretical foundations. Whereas for the latter, hypertext and computing have the power to make the avant-garde seem old-fashioned, for Lampropoulos cybercriticism runs the risk of becoming too complacent. He examines three instances of cybercriticism in which concepts from French theorists Michel de Certeau, Michel Foucault, and Jacques Derrida are applied to the study of cyberspace and hypertext. These applications—which follow a series of operations in which concepts are appropriated by analogy, de-contextualized, or taken as a hypothesis of the real to be confirmed rather than as vacuous categories—blunt the theories, emptying them of their previous provocation and subversion, and making them appear self-evident where they were once ground-breaking. In his own words: "Cybercriticism does not seem to breed serious critical doubt vis-à-vis these well-known theoretical propositions. On the contrary, it leads to willing acceptance, promotion and even celebration of yesterday's contested and controversial issues."

    With his intelligent remarks, Lampropoulos does not intend to discard all cybercriticism but to alert the cybercritics of the "potential deceptiveness" of certain critical moves, and to encourage them to take advantage of the field opened up by cybercriticism, which boosts a rethinking of older theories and becomes a site of debate and awareness of difference.

    In her article "Theory of Hypertext: a Cognitive Approach", Ziva Ben-Porat illustrates other forms of integrating the hyper-paradigm in literary studies. Ben-Porat uses a type of hypertext which works as a prosthetic literary memory in a series of experiments designed to test readers' cognitive habits of text interpretation, in particular, their ability to process intertextual allusions. Ben-Porat shows us how hypertext can be used, not only to trace the reader's interpretative activity, but also to "gain understanding of the cognitive processes involved in the actualization of mass media/liteary canon inter-textuality in its many forms".

    Ben-Porat's hypertext is a multimedia cluster of texts linked on the basis of explicitly-defined inter-textual relations. By providing readers with an actualized associative net, she pretends to fill the gaps of the educative system, especially with respect to the knowledge of canonical literary texts, and to improve the processing and interpretation of allusive texts. These educative hypertexts have also been used to research readers' abilities to identify and interpret intertextual allusions. What she found is that exposure to hypertext is already affecting our reading habits: "It seems that the need to retain a number of vaguely formed interpretative hypothesis in limbo might develop a competence that could be an important addition to our arsenal of reading strategies."

    In this case, hypertext comes to the rescue of an endangered canon that has fallen from grace for a generation of "clickers and browsers", but that, thanks to a hypertextual makeover, can again be endowed with "text-appeal".

    Susana Pajares' contribution, "Ludology meets Hypertext", could be already situated in some "beyond-hyper" paradigm. It shares with Lampropoulos' its meta-reflexiveness, since it is a comparison at theoretical level of two of the paradigms (if the idea of one paradigm sharing space with another is indeed possible…) in the study of digital texts: hypertextual theory on the one hand, and ludology on the other.

    According to Pajares, the hypertextual paradigm is already dead, since most digital scholars are turning their attention to other objects of study, such as computer games, blogs, or social software. If Lampropoulos denounces the easy safe-theorizing of cybercritics with respect to their use of French theory, Pajares exposes the mistakes of this theoretical

appropriation, which functioned well as a publicity stunt that made room for them in literature departments, but failed to account for the real trends within the web. According to Pajares, the theoretical emphasis should have been not so much on metaphors of infinity but on metaphors of organization; not on the dissolution of the author but on author control; not on the reader as author, but on the reader as searcher, etc.

Pajares presents ludology as a theory of the new century whose evolution has many points in common with that of hypertext. Ludologists are trying to find a role in the actual division of intellectual labour by separating themselves from early attempts at theorizing computer games, many of which, like with hypertext, came from literature. But this move away from textual theories, Pajares concludes, runs the risk of becoming an all-excluding formalist approach, which can miss "the most interesting aspects of games as cultural objects".