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The challenge of cybertext: teaching literature in the digital world

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Presentation

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It is a great honour for me to introduce the author of this article which opens the current edition of the UOC Papers Journal, the renowned Finnish university professor, Raine Koskimaa: an expert in questions of literary creativity on the Net. He is a professor in Digital Culture with the Department of Art and Cultural Studies of the University of Jyvaskyla (Finland), where he runs the International Masters' Programme in Digital Culture and both his teaching and his research are based on his specialisation in digital textuality, programmable media and the information and communication society. Prior to this, he was professor of digital aesthetics and communication at the IT, the University of Copenhagen (Denmark) and at the School of Cultural Production and Landscape Studies of the University of Turku (Finland). He has also held the post of researcher at the Center for Literary Computing of the University of West Virginia, in the United States.

His PhD thesis, *Digital Literature. From Text to Hypertext and Beyond* (2000), which can be consulted online at http://www.cc.jyu.fi/~koskimaa/thesis/, represented a high profile contribution to the field of theoretical and critical study of digital literature. Professor Koskimaa is also the author of numerous monographs, articles and essays on digital literature, hypertextuality and cybertextuality, but not just that. His education based on philosophy, the theory of literature and comparative literature has also led him to publish questions related to reader-response studies (reader-based reception studies), the use of the media, cyberpunk science fiction and, obviously, about narratology. He is the co-founder and co-editor, together with Markku Eskelinen —another prestigious expert in narratology, games studies and cybertextuality— of the editorial series, *The Cybertext Yearbook*, which are extremely valuable because they provide an in-depth study into various aspects of cybertextual literature commissioned to guest editors who specialise in each field and who have become a true world benchmark. A further sign of the international renown that our guest enjoys lies in the fact that he is a member of the Literary Advisory Board of the Electronic Literature Organization (ELO) in the United States and of the Review Board of the prestigious *Gamestudies* journal.

Although my relationship with Professor Koskimaa began in April 2002, a seminal time for the discipline, the first international conference was organised by the ELO on digital literature, The State of the Art, his link with UOC dates from the end of 2002 when he participated in the *Hypertext cartographies* seminar held in Barcelona and organised by the researchers of the IN3's Hermeneia research group. He gave the paper *Do you want to hear about it? Close reading on hypertext*, in which he in some way simplified and uncomplicatedly referred to this new literary reality —hypertextual literature— and gave a lecture dealing with some of the more well-known fiction hypertexts that had appeared until that time. Since then, he has not ceased to look into these aspects more deeply, while at the same time opening his field of study, steering it in a privileged way towards cybertextualities —which have already been announced in the *beyond* that appeared in the subtitle of his thesis— and towards ergodic literature. A member of the Hermeneia research group as a researcher since 2002, he has played a part in the various projects that we have been carrying out —"Text, hypertext, cybertext: Ergodic literature and critical practice in the digital paradigm", BFF2003-02749 of the Ministry of Education and Science (2003-2006)— and he has taken part in some of the seminars and conferences that we have held, such as E-Textualities: New Scenarios for Literature (April 2003), Under construction: Digital Literature and Theoretical Approaches (April 2004), and Literary Studies in the European Framework: Looking Ahead (December 2006) at the UOC or at international conferences that we have co-organised, such as the international conference Literary Studies in Open and Distance Learning, which was held in April 2006 in Ierapetra.

In his article, "The challenge of the cybertext: teaching literature in the digitial age", he shows to perfection one of the two aspects that we wanted to contribute to the journal and which constitute the two fundamental pillars of our research group: the study of literature through digital technologies, a type of e-philology geared towards literary studies, on the one hand; but also the study into new ways of creating literature on the Net or with digital technologies, which we call e-textualities or

digital literature. In this sense, who better than a specialist like Raine Koskimaa to reflect on the debate that is currently focusing attention on the discipline: the ontology of the object of the study —technotext (according to Hayles) or cybertext (according to Aarseth), in short, e-textuality. A subject that has already been the object of study and reflection by some of our research group and which we published in the issue entitled _E-textualities: new scenarios for literature_ (Barcelona 2004), in which our author also appeared with a chapter on the matter.

The Literary Studies in the European Framework: Looking Ahead international conference held last December helped focus the discussion on the challenges of the present that will be the future of our work as professor and researchers. Consequently, the analysis of up to what point the change that is the EHEA will affect our area of knowledge, but also how this discipline must open itself up to the new forms of creativity that the new languages permit and that are ever more present here and elsewhere and how to incorporate them as an object of study in a context of general recomposition of European university teaching, focused our attention and study and here we offer two exclusive examples. We hope that our readers will share this dual, two-fronted perspective, which we consider necessary.

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article

The challenge of cybertext: teaching literature in the digital world

Raine Koskimaa

Abstract

In this article the changing role of literature and literary discourse in the contemporary media landscape is discussed. Literary scholarship may well be able to maintain its important position in the digitised world, but this requires open dialogue with cultural and media studies. The main focus lies in the emerging field of digital literature. Whereas digital publishing and hypertext editions bear significant consequences for research and education, it is cybertextuality, in particular, which is fundamentally changing our notions of literature.

Keywords

cybertext, digital culture, digital literature, electracy, electronic media, hypertext, technotext

Resum

En aquest article s'analitza el paper canviant de la literatura i del discurs literari en el paisatge mediàtic contemporani. L'erudició literària podria mantenir la seva important posició en el món digitalitzat, però això requereix un diàleg obert amb els estudis culturals i de mitjans. L'atenció recau principalment en el camp incipient de la literatura digital. Tot i que la publicació digital i les edicions amb hipertext tenen conseqüències significatives per a la recerca i l'educació, és la cibertextualitat, en particular, la que canvia fonamentalment les nocions de literatura.

Paraules clau

cibertext, cultura digital, literatura digital, electracy, mitjans electrònics, hipertext, tecnotext

There are two main arguments I want to make as a starting point for this talk. First, literature in the traditional sense has given way to electronic and, increasingly, digital media in the overall media landscape. Second, literature itself has changed significantly since the birth of electronic media. Both of these arguments bear crucial consequences for the teaching of literature today. What follows is an elaboration of these issues.

Literature and the new media landscape

We have been witnessing a fundamental cultural change taking place since the latter part of the 20th century.[1] The rise of the electronic media has challenged textually and literarily driven cultural formations with ever expanding force, so that theorists such as Marshall McLuhan (1962) have claimed, from the 1960s on, that we have left the 'Gutenberg Galaxy' behind and it is now electronic communication, instead of print media, which drives cultural development. For McLuhan, television was the dominant electronic medium. Since then, the Internet and World Wide Web have grown into a global metamedia, for which it is hard to find precedents. Thus, Manuel Castells (1999) has named the era we are currently living in the 'Internet Galaxy'.

In addition to altering the roles of already existing media, the rise of the so-called new media has brought along the development of new forms of expression. Most notable among

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1. The origins of the so-called information age, or information society, however, can be traced back to much earlier periods. For interesting discussions on this topic, see e.g. Mattelart (2003) and Gere (2002: 17-46).

these is the astonishingly rapid boom of the *digital games* field, and the various genres. In addition to the mainstream game genres, such as action, adventure, sports, and puzzle games, the subfields of news games, political games, advergames, edugames, and such, bring the game approach to cultural fields where it has never played such a prominent role before.

In addition to games, there is an abundance of various sorts of multimedia productions serving various purposes in contemporary culture. And when we keep an eye on the development of digital television, with its subsequent implications for broadcast conventions and audience behaviour, we begin to get an idea of how far-ranging a change in the media landscape is taking place at the moment. The birth of digital literature in its various forms, to be discussed later on, is indeed part of that change.

Indications for print literature have been almost surprisingly good so far. In Finland, as in many other European countries, the number of books printed and sold is steadily increasing. The average print runs are diminishing somewhat, but the amount of titles published is increasing.[2] Also, magazines and journals are continually hitting new sales records. Despite the fact that most households have an Internet connection, that networked computers have entered nearly all classrooms, that many people spend several hours a week playing digital games, literature and reading seem to be doing fine. There is really no big surprise here, as cultural changes always take time, and the sudden, radical decline of literary culture —despite forecasts to the contrary surfacing frequently— has never been really plausible. However, contradictory trends can also be seen. Elementary school teachers in Finland are increasingly worried because, according to their testimonies, pupils with limited reading skills are more and more common. Likewise, the number of pupils not reading literature at all is increasing. At the same time, these pupils may be well versed in employing the digital new media for informational as well as entertainment purposes —at least a part of them are compensating with *electracy* (a term coined by Gregory Ulmer, 2002) what they are lacking in literacy. We could actually predict a future with four types of people: those well equipped with both literacy and electracy skills, those doing better in the world of literacy, those doing better in the world of electracy, and finally, those left out of both fields. We could dwell on these issues for much longer, but our aim here is not to attempt to predict the future. Rather, I would like to claim that no matter what the future may hold for the literary world, literature already exists in quite a different cultural context than it did just a few decades ago.

Even if certain contemporary works look exactly like older literary pieces in their formal, structural and semiotic aspects, they are nevertheless written and read in a new context. Writing and reading strategies as well as our cognitive-emotional engagement

with literature are quite different today than during previous periods of history. The challenge brought to teaching literature could be described as a need for 'media-specific analysis' of literary works, as argued especially by N. Katherine Hayles (2002). This is a twofold task: first, there is a need to understand the character of literary discourse, based on the material conditions of its existence and on the new conventions developed around it; second, we need to acquire an understanding of the overall media landscape, as well as related user-spectator-audience behaviour, and to see literature as a media operating amongst others.

Literary works may also reflect the new media forms in their own structuring. The e-mail novel, for example, is a natural descendant of the traditional epistolary genre, but with the wholly new temporal perspective of real-time, online communication (see e.g. Keskinen, 2004). Furthermore, fresh research work must be done in order to understand how narrative plots are affected by the introduction of mobile phones and other such devices, which make it increasingly hard to base suspense on the assumption of the lack of knowledge (or difficulty in getting access to information) in critical situations. We may be tired already of the political information society rhetoric, but it is impossible to deny that we are living in such a society, and this has consequences on how we experience the everyday world which, in turn, must be somehow reflected in contemporary literature. It is an important task for basic research in literary studies to recognize how notions of everyday life, changing in terms of the growing role of information and communications technologies, are reflected in literature, and what consequences this has for narratological, semiotic, cognitive, etc., structures in literature. This kind of inquiry might also produce important insights into the workings of current societies and cultures, relevant beyond the scope of literary discourse. The question of broader relevance, one of the central legitimizing arguments for literary studies all along, is still operative today: literary studies may have as much relevance in the current digital media culture as it had before. A condition for being able to address these issues, however, is competence in applying cultural context-sensitive analysis of contemporary literature, including genre writing like science fiction, detective stories, and other forms of popular writing. Thus, a certain degree of cultural studies is essential in order to establish the relevance of literary studies in the contemporary world (as advocated, among others, by Anthony Easthope, 1991). It is important to maintain the specificity of literary studies, but also to expand our approach with cultural studies sensibility and to engage in an open dialogue with media and communication studies.

Finally, we need to recognize that a new kind of literature has emerged out of the digital environment. We may refer to

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2. For a thorough discussion of developing trends in the Finnish book trade, see Saarinen, Joensuu and Koskimaa (eds.) (2001).

these new kinds of works as 'cybertexts' or 'technotexts' (see Aarseth, 1997, and Hayles, 2002, respectively). No matter what the chosen term, it is important to keep in mind the plurality that is easily forgotten behind the unifying umbrella term: there is a huge variation of possible approaches to the new textuality, and it is easy to forecast that, so far, we have just seen the first glimpses of what is to come.

Educational Possibilities

So far we have mainly dealt with questions which are primarily challenges to literary studies and, consequently, problematic issues in teaching. To face up to this type of challenge, educational innovations are not sufficient. Rather, research advancing on this front should also furnish the tools required for educational purposes. There are, however, certain educational possibilities offered by the new digital technology, which may be employed in teaching both traditional literature and digital literature.

As a first example of such possibilities I would like to mention role-based online discussion as a method for teaching literary history. This kind of approach, called 'The Ivanhoe Game', is described in detail by Jerome McGann (2001). Whereas 'The Ivanhoe Game' serves both research and educational purposes, a simpler, more clearly pedagogically oriented version of a role-based online discussion has been employed in a course on European literary history at the University of Jyväskylä for a few semesters now with encouraging results. In this version, each student is appointed a certain character from the historical period studied (for example, an author) and then seeks information about that character, as well as the historical period in general. Thus equipped, students should be able to conduct online discussions impersonating their assigned characters. For current students, who are often quite well versed in online chat and frequently also experienced in the type of identity play favoured in anonymous chat channels, this should not be that strange an approach.

Another possibility with great educational potential, but so far badly underused, is the application of various visualization methods of literary structures on the computer screen. Some hypertextual scholarly editions of literary classics can show connections between parts of given works, and hypertextual linking is certainly useful in making various intertextual allusions visible; but we should also consider applications like 'The Text-Arc'[www1] as innovative ways to concretize semantic, syntactic,

phonetic and other structures of the work. The combination of auditory and visual presentation in an interactive environment may prove to be an efficient way to demonstrate prosodic nuances.

We should also keep in mind that there is a new field of literary discussion in the online world. There are various discussion areas devoted to literary issues, often focusing on particular authors or texts. There are literary web journals publishing articles and literary criticism —as an example we could mention the Finnish webzine, *Kiiltomato,* whose mission is to publish criticism on books which do not gain much attention in the mainstream media.[3] Last but not least, we should note the blossoming of literary web logs, or 'blogs'. Blogs offer a chance for literary dialogue in the peculiar temporal setting of blog writing, where publishing is instantaneous (after pressing 'Submit' the text being submitted is immediately available for online readers) and almost real-time commenting and discussion are possible. As posts are maintained in an archive, a certain discussion may continue for a longer period and attract comments long after its initial emergence. Thus, the literary blog is a case of asynchronous communication which now and then comes close to real-time communication. In literary blogs the discourse is often essayistic or 'poetic', in sharp contrast to the information-oriented web discourse. Both literary blogs and discussion forums offer a huge potential for literary education, as they allow students to engage in discussion with the authors whose works they are studying, as well as with specialists or enthusiasts on certain literary topics, and also to receive a kind of informal peer-review of their tentative ideas on specific issues.

What is Digital literature?

At this point, it is high time we define what we mean by 'digital literature'. We can distinguish at least three quite different meanings for this term:

1. *Digital Publishing.* This is a perspective which focuses on the production and marketing of literature, and books in general, with the aid of digital technology. It includes such phenomena as eBooks, Print On Demand, AudioBooks made available as MP3 files, etc. Content-wise, it is literature in the traditional sense, as digital technology mainly serves here for packaging and distribution purposes. Even though developments in this field have been much slower than

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3. We might mention here the case of Sven Birkerts, a notable literary critic and editor, whose influential book *The Gutenberg Elegies* (1994) lamented the eradication of traditional literary values caused by the superficiality of communication in the networked media. A few years later, the author sold his soul, so to speak, as he started to work for the online supplement of a literary journal, *AGNI Online*, and published a thought-provoking editorial on how his views had changed since the *Gutenberg Elegies* (Birkerts, 2003).

[www1] The Text-Arc (www.textarc.org).

expected, there is still a potential for important changes, as people read more and more from computer screens and expectations for online accessibility constantly increase. Literary texts may prove to pose the strongest resistance to this development, but the situation is entirely different when we consider textbooks and other non-fiction works (on these issues see Koskimaa, 2003).

2. *Scholarly literary hypertext editions* for educational and research purposes. This category includes hypertextually annotated literary works, as well as multimedia implementations of literary classics. Due to royalty rights, these are mainly older works. Early accounts were quite enthusiastic with regard to the educational potential of literary hypertext editions (see for example Landow, 1993). Jerome McGann, on the other hand, has strongly advocated the novel possibilities opened up for research by hypertextuality and other digital technologies (McGann, 2001).

3. *Writing for Digital Media*. Digital texts are always *programmed* text, text based on computer code. This opens up a limitless field of literary play and experimentation, as texts can be programmed to behave in a more or less dynamic way. We call this perspective 'cybertextuality' and the works 'cybertexts', in accordance with Espen Aarseth (1997). Cybertextuality is an umbrella term for different types of digital texts, such as hypertexts, kinetic texts, generated texts, texts employing agent technologies, etc.[4] All three categories pose important questions for literary studies research and bear implications for literary education. In what follows, however, our attention will focus mainly on the third category, cybertextuality.

Cybertexts

Cybertexts, i.e. literary works employing networked digital media, are expanding the scope of literary discourse to the fields of "the artefacts and the systems of signification and communication that most clearly demarcate our contemporary way of life from others" (Gere, 2002: 12). Thus, they address what we currently refer to as 'digital culture'. As Adalaide Morris has said in her important recent essay *New Media Poetics: As We May Think/How to Write*, "what we do and see does not match the inscriptional or representational conventions through which we think" (2006: 3). In other words, we are dealing with the new digital technology in our daily lives, especially in communications and media use, and that is what we 'do and see'. On a practical level, then, the new media technology is with us in a very fundamental sense. At the
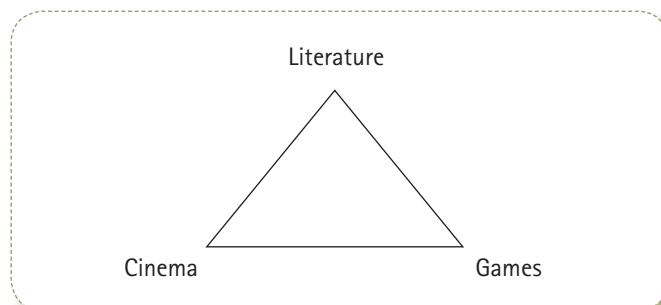

Figure 1. Cybertexts location

same time, however, our conceptual categories and theoretical ways to try and grasp the world, 'the conventions through which we think', are borrowed from the era preceding the digital age. The best way to try and get to terms with 'what we do' in literary studies and education is to turn our attention to cybertexts, which reflect, in their digital form, the everyday experience of the digitalised and mediatised world. Turning our attention to works which do not operate on the premises of 20th-century (or older) literary theory is required before we can hope to remodel our conventions of thinking to fit our current experience.

Roughly speaking, cybertexts can be located within the triangle shown in Figure 1.

They employ techniques such as hypertextuality, interactivity and programmability, and there is a grey area where literary cybertexts clearly give way to works which might be classified as games or (interactive) cinema. We do think, however, that there is much to gain by keeping the literary world open to these new developments, and thus acknowledging the fact that 'literature' is a historically changing concept, rather than strictly adhering to traditional literary forms and genres. This means that 'writing' should be understood today in a broader sense than previously; especially programming, the writing of computer code, should be included in this expanded notion of writing. For readers, on the other hand, there is a need for what Aarseth has called 'ergodic' activity, the kind of 'nontrivial' action required to traverse the text (1997: 1-2). This ergodic activity may take the form of choosing from available hypertext links, setting the parameters of a text generator, taking an active character-role within the represented fictional world, etc.

Computer code is always involved at some level of the cybertextual work. An interesting question is, then: is the code part of the work? This may be reformulated as: where is the border between text and code? When we look at cybertextual literary works, how 'deep' do we need to look? Even though most cybertexts do not require advanced computer skills from the reader, the situation is somewhat different from the perspective

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4. We should note here that Aarseth strongly argues for cybertextuality as a perspective on all texts, whether printed or digital. Similarly Hayles, in her treatise on technotexts, discusses both print texts which comment or reflect upon the 'post-human condition' and digital texts which embody that condition.

of a researcher or a teacher. In order to understand the specific nature of cybertextuality, one needs to know the basics of programming. This does not necessarily mean mastery of specific programming languages, but rather a more general understanding of how computer programs are put together and what they are capable of doing. Michael Mateas (2005), for example, has talked about the necessity to teach 'procedural writing and thinking' as part of education in the new media. There is also a special category of works which require a more profound understanding of the software environment. These include, for example, poems which are written in such a way that they work as executable code in a certain programming language; these works can be seen as a literary branch of 'software art' or 'code art'.[5]

The Case of Finland

Taking a closer look at how the teaching of literature is arranged in Finnish Universities, one can see two major trends. First, there is a growing demand to 'profile' the studies, to define specific 'areas of expertise' in research and teaching, and then concentrate on those. Another is the tendency to merge departments, as a consequence of which there are not many Departments of Literature left at all. Instead, literature is taught as one discipline within cross-disciplinary departments like Art and Culture Studies, Media Culture, Culture Studies, or Finnish Language (linguistics) and Literature. The departmental context, with its specific choice of 'neighbour' disciplines, naturally influences the content focus of each discipline.

At the University of Jyväskylä, Literature is part of the Department of Art and Culture Studies.
- Department of Art and Culture Studies
  – Arts Education, History of Art, Contemporary Culture Studies, Digital Culture, Literature, Museology
- Literary history as a part of a more general art and cultural history
- Contemporary literature and its reception
- Digital Literature
- (Creative Writing)
- Division between Finnish literature and general literature has been downplayed

Approaches to Digital literature
- Finnish Virtual University of Literature
  – Online network of literary studies

- Research Projects on Digital Literature
  – Finnish Web Literature
  – Interfaces to Textual Machines
- Courses on Digital Literature
- Finnish ELib
- ELINOR (Electronic Literature in the Nordic Countries Network). [www2]

Facing the Screen

Today we can now see a new factor stressing the perennial fact that literature is by no means limited to books. Indeed, literature has always existed on stage, in newspapers, in oral performances and now, increasingly, in electronic media contexts. This poses a double challenge for literary teaching: the specific nature of literary discourse should be kept clear, and at the same time the overall media landscape and the sprawl of media forms, old and new, should be acknowledged, with literary discourse seen as an inseparable part of this larger field.

We should not despair over the inevitability of the current remodelling of literary discourse. After all, this is just a sign that literature is still alive and actively seeking new modes of expression. From an educational perspective, in particular, this should be seen as a positive development, one which helps maintain and even increase the relevance of literature in the contemporary digital world, and also as an opportunity to improve on literary research methods as well as pedagogy.

The challenge, then, is to face the screen and look at the new forms of literary discourse emerging from the digital media. As literary scholars we should be best equipped to recognize the literary qualities in programmed works which may, at first glance, seem very far from anything we have learned to embrace as literature. Subsequently, we can begin to try and understand how those new formations are connected to the long centuries of literary tradition. And, of course, we should remember that the chance to witness and participate in such a fundamental cultural change does not arise every century.

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5. John Cayley (2002) has discussed the relation between text and code at length in his essay *The Code is not the Text (unless it is the Text)*. The essay also includes, as an example, his own code poem.

[www2] ELINOR (http://www.elinor.nu/).

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