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A new education environment: cybertext and hypertext

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Abstract

A new technological paradigm, having replaced postmodernism in the judgment of many researchers, is considered in the article. The changes in scientific and pedagogical understanding of the literary process and media are shown through comparative research methodology. It is stated that there is no unity in terms of describing the new paradigm in science (in particular in English-language sources). Correspondingly, there is no consistency between the different concepts of the new paradigm, approaches to hypertextuality, cybertextuality, etc. In here, the first important step towards understanding the situation "after postmodern" would be the developing authentic concepts.

Keywords: Education, Environment, Cybertext, Hypertext.

Un nuevo entorno educativo: cibertexto e hipertexto

Resumen

En el artículo se considera un nuevo paradigma tecnológico que reemplazó al posmodernismo a juicio de muchos investigadores. Los cambios en la comprensión científica y pedagógica del proceso literario y los medios se muestran a través de una metodología de investigación comparativa. Se afirma que no hay unidad en términos de describir el nuevo paradigma en la ciencia (en particular en las fuentes en inglés). En consecuencia, no hay coherencia entre los diferentes conceptos del nuevo paradigma, los enfoques de la hipertextualidad, la cibertextualidad, etc. Aquí, el primer paso importante hacia la comprensión de la situación "después de la posmodernidad" sería el desarrollo de conceptos auténticos.

Palabras clave: Educación, entorno, cibertexto, hipertexto.

1. INTRODUCTION

The newest technologies penetrate into all spheres of life. Education is not an exception, particularly, the teaching of the Humanities at a higher educational institution. The actual situation is that high technologies are more and more changing the traditional writing – new quasi-literary technological products ("poetronica", "ceterature", etc.) appear, and they modify the very idea of a literary text. The changes in the field of media are not less radical: modern

information resources become cybertextual, and, consequently, interactive. In the present work, we try to identify the position of modern technology in literary and media processes, to deal with terminology as one of the most problematic areas of modern cybertext and hypertext discourses.

Ted Nelson, an American researcher in the field of information technology, a philosopher and sociologist, is considered the inventor of the term "hypertext". The term was put forward in the 60-ies of the twentieth century (often they speak about 1963). Nelson defined a hypertext as follows: "Nonsequential writing - text that branches and allows choices to the reader, best read at an interactive screen...a series of text chunks connected by links which offer the reader different pathways" (Kilfeather, 1996).

However, one should distinguish among the terms "hypertext" and "cybertext". The first and second ones sometimes correlate as the general and the particular; nevertheless their relationship should not be viewed strictly within the framework of subordination. A hypertext can be implemented outside of the computer: there are hypertext books that are traditionally published "on paper". Some of them appeared in the pre-computer era. On the contrary, a traditional linear text can be transformed into a cybertext, if it is located for instance in the Internet. It turns out that the concepts under consideration absorb one another: a cybertext can become a secondary formation as compared with a paper pretext, if the latter was written to exist in the usual paper "format".

Conversely, there are texts that exist only in the virtual world; they are created just for it. And even if they are transferred to another non-virtual medium, their initial sign essence remains the same; as a matter of fact, we will create just a "post-text".

2. MAIN PART

The novel "The Infinite Deadlock" by Dmitry Galkovsky was created in the 80-es of the twentieth century as a print project; though, the text was not published immediately. In any case, the initial intention of the author did not imply the penetration of the book into cyberspace. In the course of time, however, the author realized that his chosen system of internal hyperlinks will perfectly fit into the structure of cyberspace. Besides, the site, where "The Deadlock..." is located today, on the one hand, is interactive (there is no need to constantly flip through the book in search of the right paragraph), on the other hand, it does not give those purely bookish opportunities of a traditional book. So the transition of the original text into a different coordinate system changes its sign nature, and therefore we have got a post-text, a "replica" in relation to the original text. Especially, when the original printed text is not fully located into cyberspace, and exists there in fragments.

Thus, a cybertext may not be a hypertext and a hypertext may not be a cybertext (a dictionary is a primitive example of the second). In some cases, a hypertext is integrated into a cybertext, however, for the time being, the contrary is not widespread, although there are examples of adoption of high-tech elements into a traditional paper book. For instance, in the 10s some print media conducted an experiment on "cybernation" of the paper medium: the magazines were equipped with small flat screens, demonstrating commercials. In Russia such technologies were experimented by the newspapers "Metro" and "Komsomolskaya Pravda" (Grigoryeva, 2014).

The article "Hypertext. Cybertext. Digitext" Laurențiu (2017) presents some speculations concerning the correlation of the concepts of our interest, in which the author Laurențiu Malomfălean, above all, dwells upon the nature of the term "digitext". The researcher says that "cybertext is a transition between hypertext and digitext or, in more words, a paper text translated into digital form, but without any digital qualification" (Laurențiu, 2017: 13). Then the author says that "if hypertext remains on paper and cybertext remains the virtual form of a paper-written text (or the virtual reality put on paper), we now can define digitext as a writable, operable and performable text only in a digital medium, inconvertible to a paper support"(Laurențiu, 2017: 15). However, in our view, it would be better to use the term "cybertext" as it absorbs two concepts (a computer text and a digitext) in the above-mentioned meanings.

As concerns the literary discourse, the modern studies state that it was Gérard Genette who was the first to apply the concept of hypertext in relation to poetics in his "Palimpsests" (1982). However, he considered the term in relation to intertextuality and defined it through the concepts of "pretext" and "post-text", without naming them ("hypertext" and "hypotext" are used). So Genette's hypertextuality is not implemented in a single text complex, similar to a hypernovel, but at the intersection of two or more texts (Sayyed and Elaheh, 2015). The Genette's term seems not very appropriate, at least concerning modern cybertext realities. Therefore, using the term, it is better not to saturate it with Genette's connotations, and to remain within the classical definition, formulated by Nelson.

The issue of the correlation of the concepts "cybertext" and "hypertext" is clearly not clarified in modern science. At any rate, it is noticeable that the researchers choose the content of the terms at their discretion. For example, James Emmanuel in the review of the book "The Possible Worlds of Hypertext Fiction" by Alice Bell indicates that hypertext writing, "is a form of computer-based multimedia literature characterized by the use of hyperlinks, sound files, images and animations" (Emmanuel, 2012). However, this definition does not imply classical literary hypertexts, for example, the novel "Hopscotch" by Julio Cortázar, "Dictionary of the Khazars" by Milorad Pavić. These works did not have the electronic version (respectively, they were not "computer and multimedia"), but, of course, they belong to "hypertext fiction". By the way, it is not always an extensive plot – a hypertext

narrative. It may be a hypertextually organized cycle of independent (completed) texts, not bound up with each other by a prevailing plot. After all, they can be verbal-visual projects: images do not create the plot and have a "weak narrative", so the definition of Emmanuel concerns only a part of the hypertext literary discourse (Emmanuel, 2012).

In the English-speaking environment hypertext literature is sometimes called "electronic fiction". However, any literature, located on the cybernetic substratum, refers to electronic literature. Any poem online is an "electronic fiction". Besides, global network and other high-tech innovations gave rise to a number of non-literary phenomena, and they can be used by writers and poets for their artistic purposes. For example, blog-literature, SMS-literature, flash poetry (when the poetic text begins moving on the screen, and several texts appear from one set of words), etc. are used as new forms of verbal art. Moreover, in the studies, there are the terms not equal in content, but similar per se: "interactive fiction", a literary "cybertext", etc.

So, what is a hypertext proper? Firstly, we should clarify from what point of view the term "text" will be considered, as it can have at least two meanings: the verbal component is a written or uttered (linguistic) definition, as well as, the semantic system that is attributed to any type of semiosis (the semiotic definition). In accordance with the specifics of modern communication, the second root of the word "hypertext" (and hence, the whole concept) is better to consider from

the standpoint of semiotics, while intermediality, as a rule, is immanent in cybertextuality. The matter is that not only a printed text, but images and videos can be the hypertext elements (pages). And since the hypertext is a composition of a series of various nature, the disciplines related to intermedial researches become the key ones when analyzing modern hypertext discourse. Quite often, the juxtaposition of the image and the text gives not the combination of meanings, but their multiplying or even antithetical relationship.

The main feature of a hypertext is that the recipient (the reader, the viewer, and sometimes even the listener) determines the further development of events in a ramifying semantic space himself. This "ramifying" is implemented by hyperlinks - "links". And the verbal component in a hypertext is bound to a particular language, but the visual component is a universal communication means. In fact, such a hypertext can be "read" without understanding the linguistic language accompanying visualization, just viewing the image.

In a literary text the variability may not be bound only with the plot conflicts, when the reader has got a choice, theoretically speaking: whether to go to the right or to the left. It can be associated with any aspects of a literary text. For example, the reader could be asked to read the nature description or the appearance of the character, or to move on without retardation.

Hypertext variability in different forms is demanded in press. In this regard, only one example will be brought. Some media-resources (media, blogs) have the form of an interactive step response. And the user can not only read some news, not only give the comment on it, but also comment on other responses pointwise. In fact, such bunches of comments are similar to a kind of "the garden of forking paths": you can comment upon the news or upon a comment left by another user, or a comment on some comment, etc. So, here we have got a nonlinear interactive system, where users actively participate in the construction of a common "message".

As a matter of fact, all the hypertexts, especially literary hypertexts, can be divided into two types: tap and fibrous. These terms are borrowed from botany: exactly so biologists call the two kinds of rhizomes. The first of these is a distinct narrative stem with small branches, when the reader is constantly coming back to the main line (and it is just one). The second is a great number of equal shoots without a central one; the recipient is traveling here without any system – so to speak, freedom of movement is absolute. The second type might be called rhizomatic, however, this term does not entirely determine the specific character of a fibrous hypertext.

The majority of virtual hypertexts, especially mediatexts, are open for penetration of external information. It concerns the resources with other www-names being referred to in this site. Putting on the Internet allows a hypertext to have a lot of outlets outside of the text.

This technique makes the system textually open and being included in multiform external relations. Thus, we cannot say that the site has a completely stable text: even if the author will not interfere in the content, the change of the resource to which the website refers, to some extent, will be the change the site itself. As these resources are implanted into its content with the "links".

Historically, the time of the hypertext theory development concurred with the flourishing of postmodernism. This historic concurrency was also the essential coincidence: many features of a hypertext turned out to be created as if especially for the postmodern. An American literary theorist IhabHassan (1987) in his work "Making Sense: The Trials of Postmodern Discourse" identifies about 10 characteristic features of postmodern. Among them there is uncertainty, the cult of errors and omissions, fragmentation, and stylistic syncretism, metatextuality, pluralism, theatricality, and focus on the action, etc. All these characteristics are pertinent to a hypertext: there is the same uncertainty and pluralism (interactivity), the same fragmentation of thinking, the same play with a reader, and, therefore, a heightened interest in reception, the same attention to non-verbal components...

However, to define the modern information age, the terms relating to the latest technological developments are used. For example, Alan Kirby uses the term "digimodernism" (Kirby, 2009), it refers to the cultural paradigm, having replaced postmodernism.

Polemizing with Kirby, Malomfălean proposes to call this new era as "digitalism" (Laurențiu, 2017).

There are some other terms denoting the end of the postmodernism era: altermodern, hypermodernism, performatism, automodernism and others (Osipova, 2014). Thus, today there are many concepts, dedicated to understanding the latest cybertextual discourse. Such pluralism of opinions is clear: the new paradigm has generated an unprecedented shift in the field of word art and media. However, the impression is that theorists "hear" each other still badly, there is no any main line with understanding of the newest technologies in the literary process and media.

The informational and educational environment of the Bryansk Branch of RANEPА can be considered as an example of the application of hypertext systems in education. It is a specific platform created by the type of social network, but with additional opportunities for interactive learning. This educational platform is called Moodle. It is a content management system, designed for teachers to create online courses. Such e-learning systems are often called Learning Management Systems (LMS) or Virtual Learning Environments (VLE).

Moodle offers a wide range of opportunities for the process of distance learning, namely different ways of providing teaching material, knowledge assessment and academic progress monitoring.

The platform is an interactive hypertext with various analytical tools. For instance, the system records any action of its user; and it is possible to analyze e-education activity of both students and teachers.

The platform has a number of modules enabling its interactivity. So, it has a news forum where participants can post events, comments, announcements, useful links, etc. The author of the information and time of its posting are in the post line. Furthermore, to any information one can attach a file (not only a textual one). In the regime of viewing such messages of the common blog in the interface, there is a button "Reply", thus posts are available for comments. Each comment can be commented too, as a result, a branching "tree" of comments is built. Consequently, in the main news blog both cybertextual interactivity and hypertextuality are actualized.

Besides participating in the blog described above, each member of the community has got a personal blog. A lecturer puts the information dealing, as a rule, with his or her training courses. As for students, they provide the information on the academic or research activities. Each of the posts of the personal blog can also be commented. Thus, interactivity and hypertextuality are present here as well.

The third way to share information within the platform is e-mail service. Each registered user can send an email to any other user. By the way, the system implies two levels of users: figuratively speaking,

a "participant" and an "administrator". The administrators are the lecturers and staff of the Bryansk Branch of RANEPa. Students, as ordinary users, cannot use all the possibilities (e.g., they have no right to place information in the main news feed). At the same time the personal account of a lecturer and a student is alike. It should be noted that the account is also arranged on the principle of hypertextual tabs.

Each academic group has its own tab, with the access in two clicks from the home page (menu of the "group" → name of the group). A lecturer can also put here his or her information and files. They include, as a rule, teaching materials, tasks to practical classes for this group, educational and additional literature, a grade-and-rating list, etc.

3. CONCLUSION

On the whole, the platform holds very broad educational opportunities, many of which are barely actuated by the users. For example, a teacher can construct an interactive test, which students must pass online (at the stated time). However, the development of such interactive tasks is time-consuming, and, as a result, these advanced features are not actively used.

In any case, the Russian educational system is taking a turn to the electronic teaching and control systems (interactive and hypertextual ones, respectively), reducing the influence of "human factor". As the experience shows, students should be not only trained using the latest interactive technologies, but also instructed how to deal with these technologies. It is clear that a theoretical understanding of the new educational process is just beginning. And before developing any concept, it is necessary to "agree on the terms": to objectify the approach to the key concepts of the cybertextual era. Thus, as it can be seen, the researchers of cybertext and hypertext are still far from that unity.

Correspondingly, modern education cannot but respond to the latest trends in the information sphere. Today we are at the beginning of this path, and one can assume with confidence that modern interactive discourse will require new educational approaches. The pedagogical material became different.

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