

# Texts of the New Nature: Problems of Interdisciplinary Research

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The paper explores a new research direction unfolding at the junction of modern textual criticism and modernization challenges in education. It outlines the theoretical basis for constructing a model of the «new literacy» representative of the 21st century. The paper contains an attempt to describe the main trends in the changes of text: rejection of linearity, shrinkage of text volume, orientation to «small text structures», duplicative character of different sign systems in the content reflection, increase of interactivity, feedback forms development, emergence of «new forms of authorship» and a number of other trends. Examples are given of new literature, created in the form of comics, presentations, infographics, drawn notes. The author reveals the scope of «the texts of the new nature» through the provision of its characteristics; describes two main technologies of formation of such texts; provides experimental data that characterize the process of perception of this kind of texts; and, finally, formulates priority research issues.

**Keywords:** texts of the new nature, new literacy, hyper textualism, multimedia of the text, nonlinear structures.

Nowadays, researchers (teachers, psychologists, philologists) determine a tendency towards a qualitative change in the nature of the text: rather traditional verbal construction, supplemented by illustrations and elements of the simplest graphics (tables, graphs, diagrams) appears to be replaced by the texts which are characterized by hypertextuality,

synthesis of multimedia and verbal structures, active use of infographics, augmented reality and other elements which help to express the meaning. On the one hand, there is nothing new in this phenomenon: visual poetry has been known since ancient Greek times and the beginning of the 20th century both in Russia and in Europe is the flowering of the new

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forms of synthesizing the arts – a time when a poetry book design made by the artist not only supplemented the book itself, but often turned into an independent work of art. In Russia at least ten exhibitions to some extent dedicated to the presentation of books or texts that can be viewed rather than read were conducted in the last year alone. For example, these are works in the «Artist's Books» genre featured in «Paroles peintes» exhibition (a part of the collection of Mark Ivanovich Bashmakov, an academician of the Russian Education Academy, was presented in the State Hermitage Museum in summer of 2015). Various publishings for which fonts and illustrations were created by Henri Matisse, Georges Braque, Juan Miro, Roger Chastel, Pablo Picasso, Marc Chagall and many other eminent painters of the 20th century, fascinated by the *livre d'artiste* movement were presented at the exhibition.

The *livre d'artiste* movement arose mainly due to the efforts of A. Vollard, who created a new genre for which book design (from the choice of the artist to the paper selection and the printing method) became the leading creative act. «Artist's Books» as a special genre were published and are still being published in limited and single editions, many researchers of the book market associate the future of the book industry with this genre [1].

On the other hand, exhibitions called «Intertext», «New Text» are becoming quite popular. In this case Intertext is not only the main way of text composition in the era of modernity and postmodernity, a text based on quotes, interpretations and references not only to the other texts but to the other types of art. Increasingly frequently we see literary works created in a format of a comic strip; study guides designed as the illustrated material from the first page to the last one. A real scientific battle between supporters and opponents of this form of book publishing took place at the International Scientific-Practical Conference called «Text Pedagogy» (St. Petersburg, Russia, 2014) [2].

In the manual dedicated to the school encyclopedic dictionary «Russian language» a whole chapter is addressed to a review of

multitext methodologies for working with a dictionary, which include the practice of working with a hypertext, construction of tables and diagrams, multi-level analysis of dictionary paragraphs, translating articles into a question structure, restructuring, creating multimedia extensions to dictionary paragraphs, research on the dictionary, selection of photos, audio, video illustrations, etc.

It is impossible to ignore a whole selection of books by the respected publishing house «Mann, Ivanov and Ferber» triggered by a new kind of art – the art of drawn notes. At least ten bestsellers on this topic have been published in the last two years alone. Among them is the work called «The sketchnote handbook: the illustrated guide to visual note taking» by Mike Rohde, who positions himself this way: «I'm amazed and energized by the wide variety of people all over the world who create and actively share their sketchnotes. I love the sense of community that has sprung up around this process, and I've made a great many friends through sharing and discussing sketchnotes online and at conferences». [5, p. 11]. Another book released by this publishing house is called briefly: «Infographics» [6]. This small work with the volume of only 13 printed sheets requires a special attention; it all consists of 206 texts and each text is an infographic image dedicated to the analysis of a particular phenomenon: average family income, population growth on Earth since 1804, mustache shapes that men prefer, etc. Infographic texts are made on colored paper, in a different manner, the texts are not purposefully grouped into sections. According to the booksellers, the book was sold out very quickly, and as the buyers say this is «an excellent guide to everything in the world». It is hard to ignore Neil Gaiman's work «Make good art» which is actively distributed among lovers of electronic texts. The book is structured as a consistent presentation from the first page to the last one. There is nothing surprising in the fact that the majority of high-quality online educational courses are presentations supplemented with texts, films, illustrations.

It is important to take a step back to a linguistic aspect here. Maxim Krongauz's work called «Russian language on the verge of a nervous breakdown» thoroughly analyzes excess naturalization that often makes it difficult to understand the text: «community» instead of «society», «interview» instead of «talk», «presentation» instead of «demonstration» [3]. The problem is that presentation is no longer a demonstration of something (event, object, idea), not only a visualization of a speech, but an independent text created using a special software. This text is characterized by a combination of verbal constructions with drawings, schemes, photos, diagrams, signs. Tests used in presentations often tend towards nominal constructions, ultimate laconism is appreciated, special tools that enhance informativity of each page while minimizing a total number of symbols are developed. Presentation has become a text couched in a certain form. It would be incorrect to call such text a demonstration, this concept has developed a new meaning.

Texts of the new nature, new texts, multixtexts – all of these are not established concepts, that to some extent can describe a wide range of phenomena of appearance of new text structures, different from traditional structures. Some of them are already well researched. For instance, there are various studies dedicated to comics, history of which can be traced from the times of «rock painting», woodcut, using a range of holy images to narrate a holy history, to the times of modern graphic novels that have already become an independent branch of literature and have their own writers (painters? authors?), publishers, specialized points of sale, literary awards. In this area of literature there are frequent fierce debates whether such kinds of text have a right to exist; one of the most dramatic debates thrived around illustrated Constitution of the Russian Federation (project authors – N. Khudyakova and M. Gorelov), the project has gone through three re-editions, but to this very day it has as many fierce supporters as active opponents. Other forms have not even reached a stage when they have a particular established term, for

instance such texts as «drawn notes», «doodles», supportive notes or sketchnotes (notes in the form of fast drawings).

In fact, today we declare that gradually accumulated text samples have reached a qualitatively new stage due to distribution simplicity in the age of modern multimediality development. Text changes are closely related to a major breakthrough in evolution of software aimed to create and process texts. In the old days we needed a painter to create a poster, then – a designer, and now we only need an idea and a template that in only 5 minutes help to create some kind of text which is a combination of an image and a caption (slogan, motto, etc). Nowadays, there are several main tendencies in text evolution:

- rejection of linearity in text construction and perception;
- text volume compression while increasing information load on its unit;
- orientation on «small text structures»;
- the duplication nature of various sign systems in reflecting content;
- increased interactivity;
- development of feedback forms;
- appearance of «new forms of authorship» and a number of other trends.

At this stage of reflection it seems relevant to try to give this phenomenon a working name. Here and further, a thought fixed on a particular medium, for the display of which a connected sequence of heterogeneous symbols (signs of verbal and non-verbal nature) is used, will be named a «text of the new nature». In many respects a text of the new nature is a semiotic text, since for the semiotic tradition it is a structure consisting of signs and filled with meaning. But if for semiotics a text is an artistic, a musical and a theatrical creation, then in our research a text of the new nature anyhow is built on a verbal construction and, apparently, necessarily contains it in itself.

Introduction of that kind of terms is extremely complicated. When we suggest naming new forms of text «texts of the new nature», we only act for the purposes of opening a new road for the future research-

ers – we somehow have to name a concept to debate, criticise and further define. Previously we wrote that the researches of edutainment also face such kinds of problems. This concept fiercely changes the country's educational background, but it is almost impossible to give it a name in Russian, since neither «education through entertainment», nor «entertaining education» describe the core of the actions of the subjects involved. Even before they were combined into a group of a particular interest, «texts of the new nature» have become a subject of much attention for the modern teachers. This happened not only due to the formats of international research of student literacy, but also due to the appearance of a concept called «the new literacy», that is thoroughly studied in European educational practice. In fact, we are talking about how to teach children to study by analyzing and creating texts of the new nature.

How are these «texts of the new nature» created? We can describe two models of structure, as in the field of nanotechnologies: bottom-upwards and top-down; however, in our case, it is more to the point to talk about text compression and text composition. The first method, which many editors and, partly, designers have already mastered, involves the presence of text built in a traditional verbal construction (i.e., verbal form). Specifically, this initial text goes through the following operations:

- compression (verbal structures with zero informativeness or close to zero semantic significance are «removed» from it);
- replacement of verbal constructions with sign ones (arrows, pictures, graphs, diagrams);
- numbers in such texts almost always live in their numeric hypostasis, not in a literal one;
- transformation of text formats that characterize cause-effect and other relations into schemes;
- supplement of metaphors with drawings;
- change of text volume due to hypertextuality method, i.e., transition of clarifications and extensions (which can be passed by while an-

alyzing the key ideas of the text) into another perspective of study;

- supplement of text with multimedia fragments (sound compositions, video clips, animation, etc.);

- composition of a new text structure, including rejection of linearity;

- creation of new text components that help the reader to understand the text better (recommendations on how to read the text, checklists, questions for individual analysis).

The simplest form of such text composition that excludes initial compression is familiar to any educated person, even if he/she has nothing to do with the use of modern computer technologies. We are talking about detailed comments to a text of a particular writing that help to draw out its meaning at different levels of emotional and informative understanding, expansion of its meanings, reading the «language of hints» and attainment of secret meanings. As an example we can introduce the comments of Y. M. Lotman to A. S. Pushkin's «Eugene Onegin» – a source that is well known to everyone [4]. Any researcher who has returned to this text will easily understand how these comments can transform into other sign structures, and can be supplemented with graphic and other illustrations.

The second way to create a «text of the new nature» is associated with the hypothetical possibility for the author to write the text in one go using the entire sign palette, i.e., not to resort to verbal and literal expressions where it is more appropriate to use another symbol. Partially such texts are well-known to us. A great many orators write neither texts, nor plans of their speeches, and prefer to use a particular method of presentation construction already during thought process; lovers of texts in a format of «drawn notes» (sketchnoting) create their texts mainly as drawings, where words are needed mostly to enhance a drawn writing and are not an inherent value. Comics deserve a special analysis... We called this way «hypothetical» only because for this kind of writing one must have an equally developed ability to process and create different sign structures.

Today it is hard to assume what percentage of the population master such form of reading and writing. The initial analysis shows that in the student audience, when the students were offered to choose one of two books on the same theme, one of which is created in a new technique (for example, sketchnoting), and another one – in a form of a traditional text, student audience is divided at a ratio nearly 1:2, i.e., one third of the audience chooses a traditional text, and two thirds chooses a «new text». We repeated this experiment three times on samples of 25 students and each time got similar results. Note that during the same experiment with the audience of teachers and an offer to choose a textbook using which they would prefer to teach their students (one textbook in a form of comics in manga style, another one – in a traditional form), the majority had chosen a traditional textbook. To what extent this choice is driven by personal traits, such as «pioneer mindset» and «conventionalism», or a preferred way of processing information – we cannot say yet. Also, it is hard to predict when we will see the appearance of the first author that will create his scientific or literary text already in symbolic systems adequate to the concept and which will be ready to be reproduced by the publishing industry.

This problem is important for the researcher because it observes not only the emergence of literary works of the new type, but also a distinctive consumer refusal to read texts that do not contain enough signs of text polyphony. To some extent, humanity goes back to its childhood, refusing to read books where there are «very few pictures». On the other hand, the identified personal changes associated with the analysis and creation of texts of the new nature cannot but govern the change in the reading behavior of a modern person and his/her activities in various areas of focus – from education and information policy to business and high-tech manufacturing engineering.

Another area that requires a thorough understanding of the texts of the new nature is associated with the development of an acute situation of progression of online educational

systems in the entire world. Statistics show that no more than 10% of students who have chosen an online educational environment complete the educational course. Perhaps one of the reasons for the low efficiency of distance learning programs is their orientation on traditional text-based learning models (linearity, verbality, consistency, completeness, etc.), formed at a previous stage of society's development.

The described changes dictate the urgent need to research the modern state of the text, analyze the current trends, explore patterns of emergence and use of the texts of the new nature.

Thus, we can point at the following objectives of the study: the research of trends in the development of the modern text structures used in different spheres of business, social and personal activity of a modern person; making a forecast for the evolution of the texts of the new nature and the «new literacy» induced by them; design of the effective technologies of construction and use of the texts of the new nature in a modern human life.

As a result, we will have to answer a number of questions relevant to education and the book industry, for example. What is the «new literacy» that a modern teacher and student should have? How to teach a person to read a text if words, pictures, infographics are its integral part and it develops in the comments and offers to supplement itself? Is it possible to insert any informational statement in the text of the new nature? And what about a literary text?

As a follow-up to the research questions we can supplement them with the questions of a predictive nature. How will the book industry develop? How to change the creative process that integrates different forms of displaying meaning? How will human thinking change?

It is important to research patterns of human perception of the texts of the new nature. These new forms include: hypertext, nonlinear text structures, multimedia text, infographics, new versions of augmented reality. Can we point out other formats that consistently come

out in a modern text? To what extent does the changed text affect the perception of the text, the ability of a person to understand and accept text meanings, the emotional state of a person? Which texts – classical verbal or «new» ones – are processed more efficiently by a person? How does the appearance of a new text change the process of formation of a creative consciousness: slows down or stimulates? The last question is even more relevant due to a tradition of understanding of classical verbal texts as a framework for development of imaginativeness.

Note that our primary experiment, associated with the creation of one and the same informational message in a traditional text format and in a form of the text of the new nature, showed an absolute priority of the last one in perception, reproduction and interpretation among the majority of respondents (four series of experiments with the texts of the same volume on a sample of 104 people). At the same time, we recorded an ability to find facts, concepts, patterns and described methods. Let's describe the experiment in more detail.

We took a popular-scientific text and processed it according to the first method with its transformation into a text of the new nature; thus, there were two texts – the traditional one (it initially didn't contain any diagrams and illustrations, there was only a half-hidden decomposition into semantic fragments) and the text of the new nature that preserved a relative linearity, but a part of the text was excluded, another part was transformed into a scheme, numerical data were replaced by diagrams, metaphors were moved to extensions.

For both texts, we thought the questions through. The questions we focused on reproductive and productive presentation of the text. Three groups of respondents homogeneous in composition (the same age, level of education, information awareness) and a group size were chosen. The first group took on the role of a pilot one. The group members read the traditional text, then a new text, checked informational content of both texts – we specifically clarified whether something was missing or

misqualified while creating the new text. Thus, a pilot group acted in the role of specialists in approbation of the new text, and helped in its upgrading. Members of the same group also marked their emotional preferences, correlating their choice with the traditional and the new text. At the next stage of the experiment, two new groups were involved. One of them read the traditional text, another one – the new text. Then both groups completed the tasks following the text. The group that worked with the new text got the result on average in thirty per cent higher than the result of the first group. At the same time, the emotional perception of the new text turned out to be much brighter than the perception of the traditional text; the majority of respondents said that they «really liked» the text or they «really hated» the text, it was «interesting, funny, unusual» to read it. While in relations to the traditional text the comments were much calmer.

Of course, this research cannot be considered anything but declarative. Each fact obtained in the research requires clarification and specification. But the follow-up study is necessary, because it helps to explain the fact of a sharp fall in reading culture that takes place among Russian older adolescents (in comparison with the results of primary school graduates) while completing the tasks provided by the Programme for International Student Assessment (PISA). Perhaps, the analysis of texts, most of which is a synthesis of various sign systems (this is how PISA tasks are formed), turn out to be difficult for schoolchildren not only due to the lack of ability to read such texts, but also because of their excessive emotional appeal (or unattractiveness).

Answers to the questions previously outlined in our research will make it possible to construct modern technologies for the effective creation and use of the texts of the new nature; to test them during the process of creation of a model product for various fields of activity: multimedia versions of traditional texts; distance learning programs using non-linear information; modern textbooks; models of relevant technological descriptions; ac-

companying texts for cultural technosphere projects, etc.

It seems clear to us that the issues for the research are based on many classical theories. We can identify several areas where the stated problems are researched at the present stage of scientific development: general text theory (N. Chomsky, M. Epstein and others), semiotics (M. Bakhtin, Yu. Lotman, F. de Saussure, C. Pierce and others) and theories of «Multiple Intelligences» (G. Gardner, E. de Bono and others); cognitive psychology (D. Miller, J. Bruner, U. Neisser and others), cognitology and other areas of integrative knowledge about «a person as a knower» (B. Ananiev, B. Lomov, A. Bodalev, P. Anokhin, I. Prigogine, T. Novikova, T. Chernigovskaya, and others), neurolinguistics, a theory of education, science and information development,

etc. The multiplicity of areas creates not only a solid foundation, but also the problem of losing the integrity of trend perception, which can be partially (or completely) filled in the framework of this study.

We believe that such research program can be implemented as a part of an interdisciplinary research. To achieve meaningful results, it is necessary to pick out a specific time interval, provided that its length is attributed to two opposing vectors: on the one hand, the complexity of the problem requires a long step-by-step analysis, on the other hand, the new texts are a product of modern rapid times, and changes in the ways to create and process texts occur each and every day. Therefore, we can say that (as if often the case with the field of education) real results are likely to be achieved in the next 3–5 years.

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## Тексты новой природы: проблемы междисциплинарного исследования

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Обосновывается направление исследования, разворачивающегося на стыке современной текстологии и проблем модернизации образования; обозначены теоретические основания для построения модели «новой грамотности», характерной для XXI века. Представлена попытка описания основных тенденций изменения текста: отказ от линейности, сжатие объемов текста, ориентация на «мелкие текстовые структуры», дублирующий характер различных знаковых систем в отражении содержания, рост интерактивности, развитие форм обратной связи, появление «новых форм авторства» и ряд других тенденций. Приводятся примеры новой литературы, созданной в форме комикса, презентации, инфографического изображения, рисованных заметок. Раскрывается содержание понятия «тексты новой природы» через выделение его характерных черт; описываются две основные технологии формирования такого рода текстов; приводятся экспериментальные данные, характеризующие процесс восприятия такого рода текстов, формулируются первоочередные исследовательские задачи.

**Ключевые слова:** тексты новой природы, новая грамотность, гипертекстуальность, мультимедийность текста.

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