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**Post mass media in the modern informational society**  
**"Journalistic text in a new technological environment:**  
**achievements and problems"**

**INFOGRAPHIC AS A VISUAL LANGUAGE**

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*Abstract*

The relevance of the research is obvious and is determined by the need to consider the specifics of using infographic as a form of visual language. We analyzed 35 journalistic materials that make up the infographic content of the AIF.ru website for March 2017 and 37 interactive infographic units on the official website of RIA Novosti for June-December 2017. As a result of the analysis it was revealed that infographic has all the attributes of a visual language and a huge informational and expressive potential. It is noticed that media continue to adhere to traditional views on building communication with the reader - they try to use a combination of verbal and visual languages. As a result of the analysis of infographic component on the basis of combining infographic with other components of journalistic material, we formulated its classification: single interactive infographic; multi-component interactive infographic as a set of static infographic components; interactive infographic as an element of a set of infographic components, where some are interactive and some are static; infographic as part of a multimedia article or long format journalism (long read or Snow Fall). It is noted that depending on the type of infographic in the presented classification there are also different forms of its representation.

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**Keywords:** Visual language, visual content, infographic, interactive infographics.



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## **1. Introduction**

Humanities demonstrate the changes caused by the interest in studying visual culture, the recognition of visual and visuality by the dominants of the cultural continuum of modernity.

### **1.1. Visual turn effect upon verbal texts change**

American scientist Rorty noted changes in the language status in the twentieth century - it was in the twentieth century that the world began to be perceived as a text, and the language began to be actively explored (as cited in Terent'eva, 2012). However, already in the second half of the 20th century the language research was replaced by description of its functioning in various fields. According to Reutov (2018), language becomes a self-sufficient structure, and society has become a text. At the same time, the research interest begins to shift towards visual information. Scientists come to the conclusion that a visual image can be the mechanism of mediating the things in existence in addition to the language, especially in the media. Written texts are getting shorter, giving way to photos and videos posted online. Visuality, which replaced textocentric approach in philosophical discourse, actualizes the concept of visual turn, which is the basis for theoretical understanding of media content "visualization". It is the theory of visual turn that can explain many essential characteristics that take place in the sphere of mass communications. The tendency to visualize information is manifested not only in journalistic, but also in educational, business and other spheres, due to which the study of the mechanisms of both negative and positive impact of the visual media content on the identity of a media consumer proves to be especially timely and in demand in the domestic science

### **1.2. Transition to visual language**

The subject of visualization is discussed by representatives of various scientific fields, such as mediallynguists, media practitioners, specialists in the field of mass communications. All of them note that visuality is a distinctive feature of the modern era and theorize various aspects associated with this process (Thoma et al., 2018; Crick & Hartling, 2015). Representatives of scientific schools agree that the verbal text loses the value which it used to have for human culture for several centuries. Gutenberg culture is a thing of the past, visualization becomes one of the symbols of the modern era.

The proposed article covers the phenomenon of infographics as a high-potential tool for the mass information pack. The focus is on the infographic message visual language potential for the mass media. The live up to the visual language potential is assessed in the present article. The evaluation involves the analysis of publications, containing infographic materials, by the newspaper AiF website and the information agency RIA.

## **2. Problem Statement**

"Visualization underlies the ability of abstract thinking, which is inherent in every human. The reflection of the visuality importance in the cognitive process is expressed in such phrases as "worldview", "frame of reference", "picture of the world", etc. (Shakirov, 2014, p. 377). So, visualization is immanent to human nature. In a sense, the pictographic letter, as the phenomenon, is inevitability discovered in the modern visual forms of communication: photographs in the middle of the XIX century, television and the

Internet in the XX century, as well as the development of a smartphone-tablet civilization in the turn of XX – XXI centuries. This obligation and inevitability are dictated, to begin with, by the naturalness of the perception of the visual image for a person.

Modern journalism offers many forms of visualization, depending on the topic, the idea, the purpose of the article, the specifics of its target audience and other things. Infographic with its unique capabilities – the ability to realize a complex representation of information, briefly transfer large amounts of data, clearly define their essence, conceptualize the topic and give the audience an opportunity to choose when consuming infographic messages – is one of the most curious media-phenomena today that require active research (Smiciklas, 2012; Dunlap & Lowenthal, 2016). In conditions of intensification of information flows and the need to competently select media tools infographic, which has the ability to transmit information briefly, concisely, clearly, simply and clearly, has the bright prospects. Having gone a long way of historical development, infographic was formed as a special kind of creolized texts with their unique characteristics and features. Infographic has become a visual language: it organizes the material; gives an interpretation of reality; puts emphasis; gives the consumer an opportunity to follow the track of author's logic, unfolding and folding sequences interesting for him; it reveals additional meanings, depending on its apperceptive base and allows to become a co-author of journalistic material. Today it is infographic with its block character, visual representation of complex connections and trends, an ordered and concise exposition of multiple data, and, of course, the orientation to the game in perception, is one of those formats of presenting the material that most adequately meets the practices of modern media consumption.

### **3. Research Questions**

Infographic as a visual language in communications is a dynamically developing media-phenomenon; today it is forced to continue moving towards content visualization, evolving from static images to rich content with complex transitions, animation elements, audio and video. The combination of visual and kinesthetic ways of perceiving information led to the emergence of interactive infographic – a complex synthetic product designed for a modern audience. There is a number of studies that reveal the communicative potential of infographic on the example of individual branches of specialized communication (for example, medicine, see Turck, Silva, Tremblay & Sachse, 2014; Warnaby & Mashour, 2014). We are also interested in the use of infographic in mass non-specialized communications (in newspapers targeting an indefinitely open and wide audience).

In the framework of our article, the informational and expressive potential of infographics as a new visual language of communications and the compatibility of infographics with other components of journalistic material will be considered.

In this article, our focus will be on interactive infographics as a part of multimedia material (a story told through several multimedia tools) or a Snow Fall (by which we mean a long story, accompanied by photo galleries, audio and video, designed using parallax layout).

## 4. Purpose of the Study

The purpose of the study we formulate as follows: to observe the information and expressive potential of infographics as a new visual language of communication.

Objectives of the study:

Analysis of publications of the Internet version of one of the leading domestic information periodicals which is the website of the newspaper AiF, that contains infographic messages, from the point of view of the information and expressive potential implementation; to identify problems and prospects for use in order to increase the level of the visual language communication understanding by a media information consumer.

Analysis of infographic content on the basis of the compatibility of infographics with other components of the journalistic text is undertaken on the materials of RIA "Novosti" (as a part of the International News Agency "Russia Today").

## 5. Research Methods

In the process of work, we used the following special research methods: a case study method, a system analysis method, a structural-typological and a structural-functional method, etc. etc. Therefore, the methodology of the study is comprehensive and aims at a comprehensive study of empiric material, which seems to be the most effective strategy in revealing the research topic.

## 6. Findings

### 6.1. Theoretical basis of the study

The theoretical basis of the study consists of papers focusing on visualization as the main trend in the development of the modern media sphere, such researchers as Amzin, Gerasimova, Safiullina, Shakirov, Shevchenko.

Thus, Shevchenko (2015) believes that visualization expands the readership. Researchers Safiullina and Shakirov (2015) are sure that interpretation of complex data becomes possible after its visualization. The information expressed through visualization becomes more meaningful, emotional, detailed and firmly fixed in memory. The author of several popular journalism textbooks Amzin (2016) writes that effective materials, better consumed and distributed by others, should: a) be well structured; b) contain useful information that can be referred to (catalogs, collections, etc.); c) be attractive regardless of the number of optional elements on the device (for example, the most important should be posted at the first two or three scrolls) and, finally, d) be meaningfully illustrated (p. 109). Gerasimova (2016) had made an attempt to structure media content visualization formats. In her theory there are "about 9 types and more than 100 subtypes of information presentation". The forms of representation of media information are "enlarged typological units" with such units as "infographics, drawings, photographs, video, animation, maps, print screens (printscreen), as well as the tag cloud" (para. 5).

The second group of papers consists of publications considering infographic as one of the high-potential tools for processing and broadcasting media information. Within this approach takes under consideration not only the correlation between media and infographic, but also its history, types, key

features and connection with the “visual turn” in modern mass media. The following specialists: Beynenson, Zolotov, Kiuru, Laykova, Simakova, and Sokolova contemplate the matter this way.

Zolotova (2015) understands media infographics as “the way of presenting information in journalistic material based on the contamination of verbal and visual codes in order to visualize statistical and digital data” (p. 28). A close approach is demonstrated by Beynenson and Karpukhina (2016), who add to the interpretation of infographics “volume”. In this aspect the term is considered as “a visual format for presenting information based on a synthesis of graphic and textual elements that clearly demonstrate the patterns of data changes (most often quantitative) in time and / or space” (p. 307). According to another media researcher Sokolova (2016), “infographics are graphic design products containing a set of graphic and textual elements and connections between them, used to convey information, revealing the causes and goals of these connections in the context of the knowledge transferred” (p. 257–258). If the categories of space-time are introduced in the previous definition for detailing the concept, the latter accentuates the cause-and-effect relationships, and also considers the desired definition in line with graphic design. However, it is obvious that there are no fundamental differences in the approaches, and we can say that infographics are described by scientists in the related categories: as a combination of text and an image created using design graphics, in order to translate any meanings. In our work, we will refer to the interpretation of the concept proposed by Laykova (2016), who introduces the term “media infographics” and describes them as “syncretic format of a media text combining various genres of journalism and a visual image created using design tools” in her scientific thesis (p. 71). Infographics are considered from the standpoint of creolized text by Kiuru and Simakova (2018).

As we can see, a fairly representative amount of research is devoted to the “visual turn” in modern media as well as its directly information visualization tool, which is infographics. Both directions of modern science have high potential undoubtedly. As for the infographics, the mediaphenomena have recently become the object of scientific interest, monographs in Russian, scientific thesis and scientific articles. There is a great number of attempts to comprehend the phenomena in a systematic manner. However, there is no study on the present topic: “Infographics as a visual language”, performed at the junction of the visual and verbal.

## **6.2. Informational and expressive potential of infographics**

In order to study the information and expressive potential of infographic as a new visual communication language, we analyzed the infographic content on the pages of the website of the Argumenty i Fakty weekly (AIF.ru) for March 2017 (35 journalistic materials). The following results were obtained: text information is present in all materials containing infographic. Articles include voluminous textual parts, there is no tendency to reduce them. Consequently, the weekly adheres to traditional views on building communication with the reader trying to use a combination of verbal and visual languages; 2) Infographic has a viral potential (due to the multiplicity and variety, appeals to “eternal” topics, presence of really successful examples on the website). By spreading it the reader takes an active position of the popularizer of journalistic content, and by demonstrating its samples he himself becomes a media actor. When this happens, infographic, of course, acts as a visual language – a means of broadcasting information.

Prove a vivid example.

The web site regularly provides infographic materials on historical topics. On March 9, 2017, an article entitled “The Great Embassy of Peter I” was published. It was dedicated to the next anniversary of the main Russia diplomatic mission to Western Europe under Peter I (Voluiskaya, 2017).

In addition to the text, which presents the "unprecedented trip of the Russian Tsar", and reproductions. There are a great number of informative infographics, showing the dates of work of the embassy, its composition, goals, the participants traveling locus, the main stages and the results. Such approach allows to transmit the information about Peter’s trip to Europe conceptually and concisely. That makes it accessible to the audience, and interesting to a large circle of readers, thereby having implemented its educational pathos.

Special website projects are even more interesting in the context of the present research. In particular, on March 11, 2017, a special project “Let’s go to the planetarium” was prepared by the Internet version of “Arguments and Facts” for the International Day of Planetariums (<http://planet.aif.ru>), started on “AiF.ru”. The large-scale project contains a collection of infographics, telling about the planetariums of Russia, introducing interesting facts on the space topic (“How Star Shower Occurs”, “What is a Super Moon”, “How Planetarium Works” and others), as well as containing an interactive map that allows you to see where the planetarium nearest is; to find out its working hours, etc. In addition, from the page of the special project, you can link to the multimedia long reads, such as "One Day in the Life of an Astrologer" and "Planetarium of the World." From our point of view, special projects like these, are unique not only for the concerned audience, but also for non-specialist audiences. Infographics collected under the topic, allows you to summarize a huge amount of information and provide it to the recipient in a concise form, still telling the most interesting facts. In our opinion, the infographics of this project have an excellent viral potential due to the competent presentation of information, the presence of many interesting facts, as well as the timeless nature of the message.

### **6.3. Compatibility of infographics with other components of journalistic material**

Based on the materials of RIA Novosti (included in the structure of IIA “Russia Today”) we analyzed the infographic content according to the compatibility of infographic with other components of journalistic material. We examined an array of infographic media materials – interactive infographic – in the number of 37 units submitted on the official website, for the period from June to December 2017, selected by the method of continuous sampling. As a result of the analysis, we formulated the following classification: single interactive infographic, which in its turn can a) be the semantic center of journalistic material, b) supplement the text information; multi-component interactive infographic as a set of static infographic components; interactive infographic as an element of a set of infographic components, where some are interactive and some are static; infographic as part of a multimedia article or snowfall.

We noticed that depending on the type of infographic there are also different forms of its representation in the presented classification.

### **6.4. Interactive infographics as a part of multimedia material**

In the framework of this article we will focus on interactive infographic as part of a multimedia material (a story told with the help of several multimedia tools) or snowfall (by which we mean a long story

accompanied by photo galleries, audio and video clips, drawn with parallax layout, see in details here: Dowling & Vogan (2015)). The infographic prepared for such projects often has unique visual characteristics. This is due to the fact that high-quality multimedia stories and snowfalls are not just an informational product of editorial, but also an element of their branding.

Let's also note also that in the period we analyzed there was a lot of historical infographics on the website. 2017 is, as you know, the year of the revolution centennial. RIA Novosti didn't leave out this topic, but also made it an element of branding.

The organizing center and the visual dominant of the snowfall "Bread and money! The economy of Russia on the threshold of the revolution" (Gvozdetsky et al., 2017b) is infographic. Basically, these are bar charts that appear and are recreated in the course of the material scrolling. Thus, the expenditures of the major powers on participation in the First World War are illustrated by stylized gold bars forming into "columns", the fall in the total grain harvest in Russia – by loaves of bread, the dynamics of rye prices in industrial regions of Russia – by gold coins, etc. There is not much text in the snowfall, the main semantic load falls on infographic.

Extremely curious is the infographic in the snowfall "How the revolution was organized. Lenins April Theses" (Potashova et al, 2017a). It is a tag cloud (associated with the texts of the April Theses) and a map. However, it is not what is interesting here. The localization of infographic is interesting. The latter is located in the head of the sculpture of Lenin in the screen center and is activated when the material is scrolled. Looks creepy enough, but effective.

Snowfall "The February Revolution" (Gvozdetsky et al., 2017d) also uses infographic elements. Infographic is activated and changed when the mouse wheel is scrolled.

There is also an infographic in snowfalls "General Kornilov's speech / General Kornilov's crime" (Potashova et al., 2017b), "October turn" (Trojanova et al., 2017b) and "How Russia became Soviet. From the February uprising to the Congress of Soviets: how a new power has appeared" (Trojanova et al., 2017a). Generally speaking, it is not interactive. These are static or dynamic elements, and in this case you can not "click" to find out more information. It acquires conditionally interactive characteristics only in the context of the snowfall format, because in order to look through it, the material must be actively "scrolled". The same can be said about the video "Three minutes before the Revolution" (RIA News, 2017). It contains infographic elements (in the form of maps, bar charts and others), however, in fact, the only interactive action that a media user has to perform is to turn it on, thereby activating for viewing.

Another snowfall also contains interactive maps – "The King of the Sea. Crimea through the eyes of Aivazovsky" (Laykova et al., 2017b). As you know, different stages of Ivan Aivazovsky's life are connected with different Crimean cities (Feodosia, Koktebel, Sudak, Yalta, Sevastopol). Interactive map of each of these Crimean areas gives the opportunity to get acquainted with the location of his houses and estates, as well as other buildings associated with his name (and read information about them) by a mouse click. In addition, by activating special icons on the map, you can admire the paintings of Aivazovsky.

Snowfalls "The Game of Thrones: the wait is over" (Gvozdetsky et al., 2017c), "Rocket parity" (Gvozdetsky et al., 2017a) and "Four renovations of Moscow. How the mass construction in the capital was changing" (Laykova et al., 2017a) contain infographic and (or) its elements, but the level of interactivity of the latter is reduced only to scrolling the materials with the mouse wheel.

Thus, summing up the analysis, we note that interactive infographic is an important component of the infographic content of RIA Novosti website. It is factual, informative, correctly visualized, often interestingly submitted. However, in some infographic messages visual beauty pushes information into the background, making such materials uncomfortable for perception and irritating.

## **7. Conclusion**

Summarizing the results of the analysis of the materials of the two mass communication major sources, we formulate the following conclusions: infographic is of increasing importance in transmitting the information to its consumer; it not only accompanies the verbal text, but also becomes a means of conveying information, taking on the properties and functions of the visual language communications.

In this regard, we note the need to take into account its following functions when creating infographic, including informational (information transfer); expressive (transfer of information assessment); pragmatic (transfer of a psychological attitude that affects the consumer).

In addition, one should pay attention to the creation and use of interactive infographic content. First, it is necessary to clearly represent its tasks and use the potential of interactivity for its intended purpose, without turning the material into an amusing toy or art product. Interactive infographic is most effective in the visualization of long-time processes or complex composite mechanisms, structures, as well as in the process of events reconstruction. Secondly, one should take into account the context of interactive infographic, its compatibility with other materials (for example, in the composition of a snowfall), the rich multimedia product should not be overloaded with infographics. Thirdly, it is necessary to take into account technical characteristics of the material and to avoid a low level of quality of its performance (low resolution, lags, inactivity of individual components). Fourthly, it is necessary to look for a balance in the ratio of verbal, visual components and interactivity, which is best handled by not only one specialist, but by a whole team including designers, reporters, programmers, database specialists, photographers, cameramen, artists, and others. Finally, an important research task is the establishment of national-cultural features of infographic content (is there a universal approach to data visualization, or should we take into account the culture limitations in this field in each case - see Zagidullina (2015)).

The scientific novelty of the present research is attempts to detect the potential of a visual language in the infographics messages of modern media, as well as to disclose its capabilities as an effective tool for generating information to the mass information consumer.

The practical implications of the present research lies in the possibility of using its results in the activities of journalistic disciplines teachers at domestic universities, as well as journalists and designers who create infographics for modern offline and online media

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