Video Infographics for Sustainable Development – the Example of the
Russia in Figures Project

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Introduction

The dissemination and popularization of knowledges about the country and the world are important tasks of modern society. Without their systematic solution the movement towards sustainable development is impossible. Government’s educational activities for population is carried out mainly through the mass media — primarily via television, which, according to the poll (Doverie Rossijskim SMI 2015), is the main source of information and knowledge for 88% of Russians.

In order to form an objective public perceptions about the country and the world, on the state TV channel "Russia 24" created project "Russia in figures" ("World in figures"). This project exists since 2009. It is a broadcast of short informational videos with a duration of 60 seconds between news reports, revealing the relevant statistical information on various themes: the population of Russia and the world, economy, employment, natural resources, transport, tourism, etc.

The objectives of this research are analysis of video infographics (animated information graphics) for the project «Russia in figures» («World in figures») from the standpoint of sustainable development, as well as identifying features of perception and visualization of geographical data in animated infographic by the example of this project.

Research Materials

Theoretically infographics is any combination of text and graphics, created with the intention of clearly informing someone about something, to express a story, to convey a particular fact (Nikulova 2010). The ideological basis of the infographic is mapping and graphic organization of data related to investment ideas and the thought-forms of different degree of complexity in the form of drawings, diagrams, tables or charts. Raw data – results of observations, measurements, etc. – turn into infographics after "reduced representations" with the help of graphs, figures, diagrams in reports and concise images, i.e. the presentation-rendering after multi-stage processing of information" (Tufte 2006).

Video infographics, as a specific form of the infographics, has a number of features relating to the choice of starting materials, process data visualization and its perception by the viewer.
Movie images are filled with the following components:

- Graphs (bar or pie)
- Line graphs
- Maps
- Inscriptions
- Arrows
- Additional items.

All contents of the frame occur in the dynamics that the viewer avoid any misunderstanding, in what part of the frame he should look at the moment. All charts, graphs, and maps are constructed and divided into segments on the front of the audience, and then consistently appear in the signature to the selected segments.

Let us consider in more detail the features of the display of geographical data as part of video infographics. The main limitation of their show lies in the fact that the consideration of the viewer is given only about 15 seconds. During this time, he should manage to convey the basic idea, an illustration of which is a map. Signatures on the maps as a rule a minimum amount, or they are non-existent, is also missing and the legend. Usually demonstrated to show the phenomenon on the map is activated only one of the methods of cartographic image.

Using the method of qualitative background can be allocated to individual countries or regions. For example, such a method is used in the video about the Muslim population of the world (Fig. 1). Selected only those countries where more than 50% of the population professes Islam. The use of quantitative background and grading of all countries of the world by percentage of Muslims in this case would greatly complicate the perception of maps, and in 15 seconds the viewer there would be no chance for her to make any conclusion.

However, in some cases, the method of quantitative background still applies. For example, it is used on the map for the video about the price of gasoline in the regions (Fig. 2). On such a map one can easily trace the pattern of placement of groups of regions with similar prices and understand displayed information, even for 15 seconds. In those cases, when we are in video infographics of groups of cities, the maps used a dot density of the image. City in most cases are without signatures, because their interpretation requires a lot of time. For example, for a video about the cities of military glory on map shows 45 points of the cities (Fig. 3). The city has not been signed, but the viewer of this map should have time to make a conclusion about the general distribution of cities of military glory in Russia.

Another example is the map for video infographics about cities with more than 1 000 000 population (Fig.4). City are also without signatures, but divided into 3 grades according to number of inhabitants. Because it was in the movie comes to urban population, it was decided to supplement the information about frame population. View time frame does not allow to give any names of cities, nor the signature of the population. However, this
screening method makes it possible to present a general picture of the quantity and distribution of cities with different population.

However, the display of geographic data occurs by means of maps — for efficiency of perception of information often is replaced by graphs. For example, as in video infographics of visa-free countries for Russians (Fig. 5). Instead maps decided to show a pie chart illustrating the distribution of visa-free countries throughout the world.

![Figure 1. Map for video infographics "Muslim population of the world".](image1)

![Figure 2. Map for video infographics "Gasoline Prices".](image2)
Figure 3. Map for video infographics "Cities-heroes and cities of military glory".

Figure 4. Map for video infographics "Cities with more than 1,000,000 population"
Results and Discussion

Summarizing the analysis of the characteristics of the display and perception of information in the television video infographics, it is possible to allocate the following advantages and limitations of this infographic compared to static infographics.

Advantages:

- The sequence of display of the information. The sequence of display frames and their dynamics provide an opportunity to tell a short story in pictures consisting of introduction, main part and final. The viewer perceives the information in the order in which it is assumed the author of the script for the video.
- The use of graphical animation techniques: movement of graphic elements, their appearance and disappearance, change of shape, separation of components, decomposition of the shapes into separate segments. All of these actions unavailable to a static infographic, significantly expanding the range of possibilities of this infographic, increase its visibility, facilitate the perception of the viewer.

Restrictions:

- The necessity of considering the video timing. The script for the video should contain information for exactly 60 seconds of video (in some cases it can be increased to 70 or 80 seconds). In the process of creating video can be a need to reduce the scenario or, on the contrary, adding more information.
- Low resolution of television screen. Resolution of video infographics is much less than static infographics for print. Besides, keep in mind that all text and elements can be read and understood by the viewer with a certain distance from the TV screen.
• The need to use design templates specifically for this project. Each issue of video infographics is part of a huge series, numbering currently more than two thousand videos. All of them are executed in the same design, and proposed solutions must correspond to it.

Conclusions

As a result, the videos for the project "Russia in figures" ("World in figures") are obtained fairly easy to understand, help popularize knowledge about the country and the world, and are also a source of formation in the representation of the audience image of Russia which characterized by some peculiarities. Primarily, they relate to the thematic focus of the project.

As noted by P. V. Kasyanov (2002), the transition to sustainable development is possible only "as a result of a change of attitudes, systems of social values, ideas about the development of economy and civilization in general". All this is impossible without a competent and systematic educational activities, one of the links which this project is.

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References