MAIN FEATURES OF CONTENT VISUALIZATION

Berdiev Rustam Karjavovich
Senior Teacher Of The Department Informatics And Management, National Institute Of Fine Art And Design Named After K. Behzod, Uzbekistan Tashkent

ABOUT ARTICLE

Abstract: Creating a two-dimensional infographic is one of the stages of development of information transfer using a two-dimensional display on a rectangular grid. This article explores the main issues of content visualization.

INTRODUCTION

The researchers found that rectangular grids were also used in China from the first century AD to depict routes for the dissemination of theological ideas. was.

During the development of early cartography in Europe, before the beginning of the Renaissance, Nicole Orezm introduced the description of the movement of an object with respect to time (longitude) and speed (latitude) in the process of preparing a map, so with the help of graphics, the real geometric space is transformed into abstract physical properties, i.e. depends on time, speed, temperature.

The invention of geographic projection as a new means of transmitting visual information marked a turning point in the creation of diagrams, when mathematical methods began to be used with unprecedented precision. Geographical maps will soon be followed by various functional graphics, as well as "statistical charts".

It was Leonardo da Vinci who was the first to show the hidden image and text in the public version, which explained the principle of operation, as well as the purpose of the depicted objects or living beings. Today, he is considered the founder of infographics.

In the modern sense, infographics were strengthened in the communication process about 25 years ago, with the help of foreign media. In the conditions of oversaturation of information, people felt an urgent

need to present a large amount of information as concisely and quickly as possible. This process was also helped by the new "screen" human culture, which began to form rapidly.

Today, visualization is easier and better accepted by people than simple printed text. Based on this, experts noticed that a text of about 6000 characters fits only one graphic image.

The rapid introduction of infographics in the mass media is associated with the emergence of infographics in the mass media by the American newspaper "USA Today" and the English newspaper "Daily Courant".

This news was accompanied by different evaluations of the readers, because the conservative-minded audience considered it an example of the shallow work of journalists, while other readers appreciated the originality of the presentation and the accuracy of the perception of such placement of information.

As for the publishers, they immediately saw the wide possibilities presented by infographics, which made it possible to compress large amounts of information and create concise and vivid materials: "the visualization of news in mass media has led to revolutionary changes in the entire publishing and journalism, constantly increased the requirements for the quantitative and qualitative parameters of the pictures"

One of the founders of modern infographics is Edward Tufte (Edward R. Tufte), who created the concept as well as an impressive collection of infographics.

Illustrative materials in his works include maps, engravings, photographs, computer-generated images, as well as built-in gate valves that show the user comparative changes before and after exposure to these images.

These materials were collected by E. Tafti in various scientific works and manuals, mass media and the Internet. As for the infographic manifesto, it not only forms the main ideas and possibilities of infographics, but also "demonstrates the reliability and scope of data visualization, the accuracy of reflection, and the intentional effectiveness of information design to solve problems and issues".

Tafty created the whole theory of visual argumentation of infographics, which is a separate part of information design, which is suitable for different areas of life, for example, from working with diagrams in scientific research to creating instructions in teaching, for example, focus or dance, etc.

It was Tafti who identified ways to use infographics as an effective information tool in modern educational practice. Thus, he refutes the thesis that graphics are needed only by unthinking readers, and also proves that quantitative statistics are "not boring".

The development of telecommunications and modern computer technologies soon gave a new impetus to the development of infographics and expanded the scope of application, as well as providing new options for the presentation of infographic objects. This situation made it possible to create new dynamic, controlled infographic objects, which today allow to recreate events and processes, as well as to create volumetric structures that come to life in interaction with users, for example, in education.

The main symbol of modern visualization methods are various forms of infographics. At the same time, it should be noted that the level of mastery of this art affects the profitability of the business. That's why magazines like "New Yorker" distinguish three designers and only one journalist as the author of the main idea for the infographic.

In Russia, since 2011, there has been a magazine "infographica", the main feature of which is the absence of texts and the presentation of absolutely all information using infographics. The secret to the success of infographics is the nature of this era - an era of visually oriented culture.

Content visualization is "a visual representation of information, a form of knowledge transfer. It is used in places where complex information must be presented quickly and accurately. The scope of its application is very large: geography, journalism, education, statistics, technical texts.

Content visualization is able not only to organize a large amount of data, but also to show more clearly the proportions of objects and facts in time and space, as well as to show trends.

The main purpose of visualizing content is to inform. At the same time, all the objects involved in it step in as an effective addition or bright accent to the textual information, which in itself fully forms the subject of the message and provides visual explanations and explanations. includes.

The nature of information transfer during the visualization process can be very different. These are objects related to parameters, diagrams, nomograms, charts, hierarchies and graphs, maps, pictorial instructions, icons, graphically presented depending on various measured values.

Objects of visual content include various collages, as well as graphic sections, where the most diverse aspects of an object or event are directly reflected, the existing connections and relationships between them are visually reflected .

The main feature that allows you to include a visualized object in a variety of information graphics is the effective ability to present a wide variety of information in a visual, structured and organized form that is very convenient for quick perception and memorization. a means of demonstrating one action, as well as revealing the meaning of another, related type of information.

The possibilities of content visualization consist in the direct systematization and structuring of information, which allows users to effectively inform about various relationships, values, trends that determine its communicative functions.

It is these principles that were founded at the same time by Leonardo da Vinci (combining visual arts with a manual of movement), then they entered the mass media and later the hypermedia environment mediated by electronic media and later the world wide web. developed and developed over the years.

This innate desire of the human brain to form a holistic image in the process of perception is correctly taken into account in the idea of visualization of content, and especially in the construction of a mental map of the phenomenon, taking into account causal relationships.

Visual objects stimulate the simultaneous operation of the left and right hemispheres of the brain. The fact is that effectively visualized content fills figurative impressions with both logic and an abstract model of an object, process, or event. All this makes the perception more "volumetric" and comprehensive, and the thinking of the person who receives this information is deep and developed, and the dating process becomes interesting and effective.

Visualization of content facilitates "Gestalt information perception (combination of elements into a whole)". the fact is that visualization not only provides criteria for integration, but additionally creates means of distinguishing differences (color, shape), as well as " a vector of expert thinking establishes (for example, assessment of trends, the phenomenon of similarity, comparison on different sets of parameters), while allowing independent selection and selection of criteria and parameters".

When working with information materials, information graphics play the role of not only a leader, but also a user's guide within the framework of highlighting certain problems.

In this case, the first intersection of the cognitive and communicative functions of content visualization occurs, in which all the main functions intersect in the process of information perception, which gives rise to a new quality of the visualized content compared to ordinary pictures. The second intersection is related to the ability to visualize content to reveal hidden or hidden objects by referring to the existing user experience.

The diversity of the functions and implementation of the principles of infographics is clearly described in the work of E. Tafti on the example of the visualization of the movement scheme of Napoleon's army in 1812-1813.

Schema organization allows you to: compare; determining the phenomenon of causality of events and facts, their mechanisms and structure; explain the consequences; multivariate analysis; integral description of events and actions in space and time.

Content visualization involves a certain dynamic expressed in the flow of thought and action. In such a situation, the flow of thought directly visualizes quantitative relationships in various objects, various trends, connections directly imprinted in memory, with real objects or events. provided by presenting them as patterns that are linked and processed first at the surface and then at deeper levels of consciousness.

In content visualization, the flow of information is important in the context of a clear flow of action, which may be in the context of idea development expressed in technical drawings or mind maps.

Interactive content engages users in active actions, and this engagement is very beneficial for marketers. By working with interactive graphics, users spend more time on the page and interact with the brand.

Infographics have become popular because they grab people's attention. Interactive graphics grab and hold attention. All differences are active/passive. People passively consume information in the form of infographics or animated graphics. Interactive graphics are superior to static ones when it comes to turning complex information into visual and understandable information. Interactive information

makes it easier for you to get acquainted with the information step by step, as well as to see the whole picture of what is happening in the complex, paying attention to details, without losing the general idea of the problem or event.

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