THE ROLE AND PROPERTIES OF MULTIMEDIA TECHNOLOGIES IN THE MODERN WORLD

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Abstract. *Regardless of people's wishes, electronic means of communication, digital technologies, and computer equipment flowed into their lives and became an organic part of it. Therefore, the penetration of modern, including multimedia, technologies into the field of education is natural and inevitable. Computer technologies have a great impact on the current stage of population development. They permeate all areas of human activity.*

Keywords: *multimedia, information technology development, principles of multimedia, the opportunity to develop socio-cultural communications, video digitization, education, virtual or alternative reality systems.*

Multimedia is one of the most promising and popular areas of information technology development. With the help of multimedia technologies, any user has the opportunity to use symbolic, graphic, sound, animation and video information to achieve various goals.

These technologies help to activate self-motivation, creative thinking, independence and the desire to comprehensively obtain and assimilate information.

It is accepted to distinguish three main principles of multimedia:

- Presentation of information using a combination of multiple environments perceived by a person;

- The presence of several storylines in the content of the product;

- Artistic design of the interface and navigation tools.

The use of multimedia technologies gives the user the opportunity to develop socio-cultural communications, using the integration of various types of information, parallel transmission and reception of information, work in real time and the ability to create own multimedia products.

Multimedia technologies are used in many areas of human activity related to the use of computer technology.

These areas include computer games, education, business and management, scientific research, industry, economics, mass media, virtual reality, art and creativity, military purposes, and others.

The largest field of application of multimedia technologies is computer games, which use the latest achievements in video digitization, complex animation and high-quality musical accompaniment, providing immersion in a three-dimensional virtual world. Today, not only role-playing games, but also intellectual ones, such as chess, sports and military games, and games from the field of fiction, have high-quality design.

Another field of the greatest use of multimedia technologies is education. Multimedia teaching aids can improve and diversify the activity of the teacher, thereby increasing the productivity of pupils and students. Multimedia technologies can help the teacher adjust the educational process, taking into account the interests and capabilities of individual students, help implement a person-oriented approach to education, provide individualization and differentiation of education. Such areas as video conferences, interactive guides, video encyclopedias, situational role-playing games, presentation simulators create a multisensory learning environment, and the involvement of all senses leads to an exceptional increase in the degree of mastery of the material compared to traditional methods.

Another area of computer application in which multimedia technology plays an important role is virtual or alternative reality systems, where with the help of special equipment you can "enter" a computer-generated or simulated world.

So, multimedia is, first of all, a means of communication, a tool for transmitting information. Multimedia permeates almost all spheres of activity. Multimedia finds its application in various fields, including advertising, art, production, entertainment, development, medicine, mathematics, business, scientific research. Often, the areas of application of multimedia applications overlap, for example, the application of virtual reality, in which the game story is combined with marketing actions. Already today, some films are shot without the participation of real actors, experimental remote surgical operations are constantly being carried out.

Today, multimedia technologies represent one of the areas of information technologies that are developing most dynamically and have a huge impact on human life.