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## USING MULTIMEDIA IN DIFFERENT SPHERES

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**Abstract**: In the 21st century, more and more attention is paid to the issue of introducing modern information computer technologies into almost all spheres of human activity. The education sphere could not be an exception. It is the education sphere, along with a few others, that is characterized by enormous potential and a variety of areas of application of computer technologies.

Key words: education, multimedia technologies, all spheres, advantages of multimedia, main components of multimedia.

## ИСПОЛЬЗОВАНИЕ МУЛЬТИМЕДИА В РАЗНЫХ СФЕРАХ

Аннотация: В XXI веке все больше внимания уделяется вопросу внедрения современных информационных компьютерных технологий практически во все сферы деятельности человека. Сфера образования не могла стать исключением. Именно сфера образования наряду с немногими другими характеризуется огромным потенциалом и разнообразием направлений применения компьютерных технологий.

**Ключевые слова**: образование, мультимедийные технологии, все сферы, преимущества мультимедийных средств, основные компоненты мультимедиа.

## MULTIMEDIADAN TURLI SOHALARDA FOYDALANISH

Annotatsiya: XXI asrda inson faoliyatining deyarli barcha sohalariga zamonaviy axborotkompyuter texnologiyalarini joriy etish masalasiga tobora koʻproq e'tibor qaratilmoqda. Ta'lim sohasi bundan mustasno boʻla olmaydi. Aynan ta'lim sohasi boshqa sohalar qatori ulkan salohiyat va kompyuter texnologiyalarini qoʻllash sohalarining xilma-xilligi bilan ajralib turadi.

**Tayanch so'zlar**: ta'lim, multimedia texnologiyalari, barcha sohalar, multimedianing afzalliklari, multimedianing asosiy komponentlari.

Nowdays multimedia is used in all areas: advertising, education, entertainment, medicine, business, art.

Education uses videos, digital encyclopedias, interactive guides, simulators, games, tests and stimulators. Learning through multimedia is easier because a person uses several senses.

This means that different parts of the brain work on memorizing information, and as a result, a person spends less time studying a subject, and the knowledge gained is stored in memory longer.

In medicine, specialists use multimedia knowledge bases, surgical techniques, and drug catalogs. There are even medical stimulators. With the help of VR and robots, doctors perform operations, learn to provide first aid, and develop communication skills with patients.

One of the leaders in the use of multimedia technologies - computer and mobile games, as well as consoles. They use graphics, sound, manipulators to control the character, sound and visual effects, and also elements of augmented reality. In fact, the player can completely immerse himself in a three-dimensional virtual world, since he uses vision, hearing and hands (tactile).

Multimedia technologies are used in business - these are:

interactive advertising and information content to attract the attention of consumers;

animated presentations with sound effects at meetings with investors,

advertising videos and live broadcasts with experts to increase brand awareness;

applications, special projects and even an electronic queue. In addition to its main purpose, it collects statistics and reports on services.

Multimedia is used to train soldiers and practice combat and tactical skills: how to service military equipment, provide medical care, and act in a coordinated manner in stressful situations. For example, VR and AR technologies are used to learn how to conduct military operations and land aircraft. Such simulators often include a training cabin that imitates military equipment, a screen, and a virtual reality helmet.

Multimedia makes art accessible. The term "multimedia" can be translated into Russian as "many environments." People have a chance to hear works by composers, see digital copies of paintings, read books from computer screens, watch recordings of theater performances, and all this without leaving home. Multimedia teaching aids are interactive teaching materials based on multimedia technologies. That is, students can directly interact with the content: change the language, turn down the volume and change the playback speed, decrease or increase the difficulty.



Multimedia learning is a special approach that is built on the cognitive theory of learning. The theory of multimedia learning was developed by Richard Meyer, an educational psychologist at the University of California. He believed that learning in which verbal and visual content are perceived synchronously by a person can be called productive. According to Meyer, it was believed that the brain has difficulty perceiving two types of information at the same time: visual and audio. Allegedly, the student may experience overload and have difficulty concentrating. Meyer proved the opposite.

Meyer's theory was based on the idea that it is necessary to use blended learning verbal and non-verbal. And for this, multimedia materials are needed. That is, tools that use visual and audio content. They help to assimilate the material faster, especially if they are interactive. It is difficult to determine where multimedia begins and ends. Jeff Burger, a columnist for New Media magazine, spoke very figuratively about this: "The definition of multimedia reminds me of the old parable about three blind men who met an elephant for the first time.

The advantages of multimedia over printed media are as follows:

help to perceive more easily the educational material;

increase motivation to learn, as it is not as boring as cramming from a book;

use a comprehensive approach to learning, due to which the student understands the subject more deeply;

allow modeling of complex or dangerous experiments that cannot be obtained in real life;

visualize abstract information (through diagrams, infographics, animation) - due to which it is easier for the brain to assimilate it.

As a result, it is not the person who adapts to learning, but the learning tools that adapt to the person.

Multimedia is a collection of diverse content that a person consumes using different senses simultaneously. It is also a technology that allows this content to be produced.

The main components of multimedia are text, hypermedia, images, video, animation, audio. Multimedia can be linear - the user consumes it in the form in which it was created by the developers. Or non-linear: the user can control, change and interact with multimedia in every possible way.



How multimedia technology is built on hardware and software. Multimedia is used in medicine, education, the gaming industry, business, the military, art and archival work.

Multimedia teaching aids are interactive educational materials that affect the verbal and non-verbal channels of a person: eyes and ears. Such materials help to learn the subject faster and easier. Multimedia teaching aids can cause cognitive overload - when a person's brain stops perceiving the material. To avoid overload, creators of multimedia materials should adhere to certain principles: do not add background music, do not use animation together with text, do not add memes and images of the speaker, teacher, reader, etc.

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