

## USE OF MULTIMEDIA IN EDUCATION

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**Annotation:** This article provides information on the concept of multimedia in education, their capabilities, the use of multimedia tools in the educational process.

**Keywords:** Multimedia, tool, application, presentation, animation, game, multimedia gallery, video application, audio application, web application, banner, graphics.

Multimedia is a branch of computer technology that processes information in different physical forms on different media.

Multimedia (multimedia) is a set of hardware and software that allows a person to communicate with a computer using a natural environment: sound, video, graphics, text, animation, and so on.

A multimedia tool is a set of hardware and software that a user can use to communicate through audio, video, graphics, text, and animation.

It is possible to work with graphics and sound editors, personal applications that can process cartographic information and text. For example, converting a file prepared in a simple Word editor to a graphic file, converting graphic files from one format to graphic files to another, combining several multimedia applications into a single multimedia application, size, volume, quality, and structure of multimedia applications can be achieved through multimedia applications. Such programs include programs such as Adobe Photoshop, Adobe Flash, 3D Max.

A multimedia product is an interactive, computer-generated product that can include music streams, video clips, animations, a gallery of pictures and slides, and various databases.

Multimedia applications are created using multimedia tools.

Multimedia applications are divided into:

- presentations;
- animated videos;
- games;
- video attachments;
- multimedia galleries;
- audio attachments;
- Applications for the web.

**Presentation.** Presentation is a form of visual presentation of information using audiovisual means. The presentation includes computer animation, graphics, video, music and sound integrated into a single source. Presentations usually have a plot, a script, and a structure for easy access to information.

**Animated video.** Animation - multimedia technology; a series display of images to indicate that the image is moving. The motion effect effect is created by the rotation of more than 16 frames per second.

**Games.** Gaming is a multimedia application aimed at relaxing, entertaining, relieving stress and developing certain skills and abilities.

**Video attachments.** Video attachments - technology and presentation of moving images. Video readers are software that controls movies.

**Multimedia galleries.** Galleries are a collection of motion pictures with soundtracks.

**Audio attachments.** Audio file readers are applications that process digital audio.

**Digital sound** - is the representation of the amplitude of the electrical signal in discrete numbers.

Applications for the Web. Web applications are separate web pages, its components (menus, navigation, etc. Data transfer applications, multi-channel applications, chats, etc.).

Presentation:

- Line presentation - a dynamic video with complex graphics, video, soundtrack and no navigation system.
- Interactive presentation - a set of multimedia components, arranged on a hierarchical basis and controlled by a special user interface.
- Animatsiya:
  - Frame animation is the exchange of images for frames that give the impression of moving images.
  - Software animation - animation in which images are exchanged using a programmed sequence of actions (ie, using algorithms and variables). The drawing of the main objects is done manually or imported from a collection or gallery, and only then it is possible to use some programming language features.

Video readers:

- Film frame movement - the preparation and placement of moving images, sequences, and images that evoke movement.
- Video stream reader - the formation of a reading device that includes video stream formats avi, mpeg, etc., after which it is possible to control this stream (for example, start a video file, pause, quickly read per video use commands such as teeth).

Multimedia galleries:

- Frame image sharing is the process of exchanging images at regular intervals.
- Panorama is a wide and close-up landscape that allows you to freely view a large open space.
- Interactive gallery - a gallery that allows the user to control (scroll through images).

Audio readers:

- Single audio file reader - add audio files in wav, mp3 and other formats to a multimedia application and listen to it again.
- Different audio file reader - similar to a single audio file reader, but with the ability to change the execution sequence.
- Virtual musical instruments are imitations of real musical instruments.

Applications for the web:

- Banners - an image or text block of an advertising nature on the Internet. It consists of a hyperlink to the advertiser's Website or to pages that detail the type of product or service. Banners are placed on various Internet resources to attract visitors, to form an image, or to promote that resource.

Teaching students through multimedia has the following advantages:

- a) There is a deeper and more complete understanding of the material provided
- b) The desire to keep in touch with new areas of learning will increase
- c) Achieving time savings as a result of reduced study time;
- g) The acquired knowledge is stored in the memory for a long time and can be used in practice when needed.

It should be noted that such influential organizations as the World Monetary Fund, the World Bank, the European Commission have extensive experience in retraining. First of all, the use of modern computer technology in the educational process deserves a tax.

There are two main types of multimedia systems used: personal computer-based with a set of external devices, and projector-based electronic board (interactive whiteboard) and system-based block learning.

To implement the second type of multimedia system, a computer system unit, a projector and electronic boards (interactive whiteboard) for two-way information exchange are used.

Hardware and Software Requirements for Multimedia: There are specific requirements for software and hardware when using and designing multimedia systems.

There are many examples of the application of multimedia technologies in many areas of human activity, but the most important thing to know is that this technology has significantly expanded the intellectual potential of the computer, which contributes to the strengthening of human creative potential.

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