

## USE OF MULTIMEDIA AND 3D TECHNOLOGIES.

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### Abstract:

The article presents the possibilities of the 3D printer, which is considered as the future of modern production today, and considerations on improving the quality of education from the printer.

**Keywords:** Multimedia technologies, multimedia, 3D technologies, 3D display, 3D printer, 3D pen, 3D bioprinter.

**MULTIMEDIA** the concept has many meanings, and experts in different fields interpret it differently depending on the field of application. If we analyze the word multimedia literally, it means (Multi-many, media-environment).

Specialists dealing with electronics understand this term as hardware tools that provide the ability to work with information in the form of text, animation, sound, graphics, video in various formats. Through this concept, designers, animators, programmers first of all understand ready-made material - text, animation, sound, etc., which gives the opportunity to influence the user in several ways.

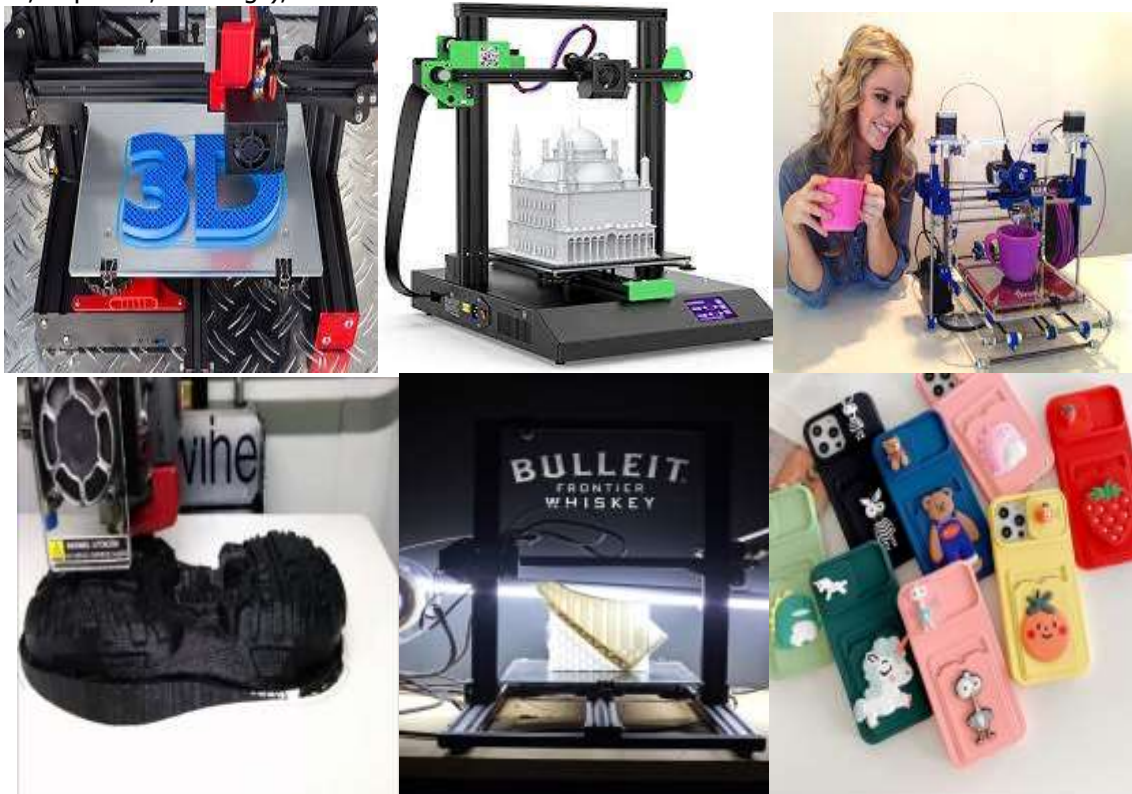
Multimedia tools are a set of hardware and programs that allow a person to communicate with a computer using a variety of natural environments: sound, video, graphics, texts, animations.

Multimedia technology allows to use several methods of information presentation at the same time.

With the introduction of 3D technologies in the field of multimedia, a new era has begun in the field of multimedia.

The term "D" is derived from the English word "dimensions", which means "dimensions". It should be noted that 3D technology is one of the world's most advanced methods of visual and audio transmission.

3D printers are printers that "print" objects based on three-dimensional drawings. Currently, such developments are carried out in a narrow scope, but in the near future it will be possible to easily make various products using a 3D printer at home. For example, it will be possible to extract statues, phone cases, clothes, miniature models of large objects (cars, airplanes, buildings), household items.



**Figure 1. 3D printers and products.**

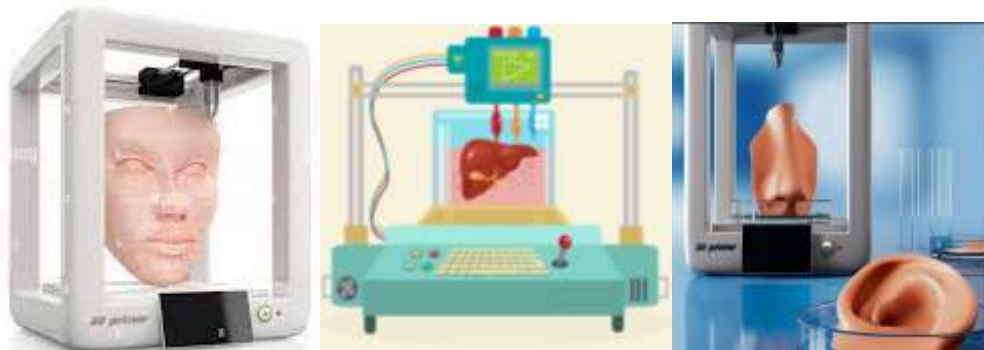
There are such inventions in the world that have not yet been widely applied to life, but no one can

guarantee that these discoveries will become an integral part of our lives. For example, smartphones and computers can become a part of people's lives. One of these discoveries is 3D printers, which are being talked about a lot in the media these days. In Uzbekistan, 3D-printing can be used in the production of robotic parts, souvenirs and toys, details for ingots, forms for jewelry. The possibilities are limited only by the user's imagination and the technical capabilities of the printer. A 3D printer is great for small batch production. It is perfect for home use.

The demand for this technology is increasing, given the decrease in the price of three-dimensional printed products.

Today, the Boeing company develops more than 200 parts of its aircraft based on 3D printing.

The concept of making things on 3D printers shows us once again that the "third world" is full of wonders. Organovo and Invitech (USA, San Diego) have created a bioprinter that prints human organs.



**Figure 2. 3D bioprinter.**

Based on the given information, it is appropriate to provide information about modern 3D printers to students in higher education institutions and to prepare methodological developments on their use.

In conclusion, it should be noted that today, teaching using modern technologies and doing practical work using them serve as a basis for further development of the field of science and education. We are confident that the future of our country will be prosperous and bright if the young generation grows up based on such world experience

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