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# THE ROLE OF MODERN MULTIMEDIA TECHNOLOGIES IN THE EDUCATIONAL PROCESS

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#### **Abstract:**

This article describes the theoretical and practical bases of applying for the role and training of e-learning resources for use in classes.

**Keywords**. E-learning resources, modern information technologies, computer science, education, presentation, design, virtual education.

#### Introduction

The prosperity of countries around the world is undoubtedly dependent on the attention and the attention of young people, and the interests of young people in the countries occupying it.

Expressing the spirit of the time, one of the most important issues is the introduction of access to information technology in secondary schools, higher education and higher education in general education schools, higher education and higher education. The global news network can provide the amount of information in any field, regardless of the speed, to receive it in any amount. The emergence of multimedia and Internet technologies has opened a wide range of access to information technology in general education schools, higher education institutions and higher education as an effective tool in the communication processes. It is impossible for the development of information technologies, choosing their independent profession, the role and effects of professional self-sufficiency, and growing professional skills.



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Multimedia is derived from the term global multimedia, the words of the England Multimedia, Latin Multimedia - multiple, media - tool, engineer, users of different information (text, graphics, voice, video). Allows you to work in communication mode combined in a single information environment.

Multimedia is an interactive (communication) system, otherwise speaking, text, graphics, animation, voice, video, animation, sound, video, a speech:

It is the sum of the technology that allows you to enter, process, store, transmit and display.

It is no secret that the development of modern multimedia tools is to make educational technologies at a completely new stage. For this purpose, the most advanced innovative technologies used in the provision and processing of different types are used. One of the most modern multimedia facilities in the field of education, the functional tools are based on various modeling tools and virtual reality.

The virtual object is included in the existing and imaginary objects and the electronic model of processes. The virtual quality is used to emphasize the characteristics of the teachers and other objects presented in paper and other physical carriers. In addition, this feature indicates real-space properties when working with electronic analog models based on multimedia technologies.

Virtual reality is an artificialized information environment that is aimed at replacing the usual imagination of virtual reality - with information based on various technical means. For education, using pictures to show information can help students understand better. The word "virtual" comes from the Latin word "virtualis" which means something that can happen or exists in certain circumstances.

This term is also enough for the education system because this term is found in many areas of human activity. There are many examples of this in interpreting concepts from different disciplines. In particular, particles that can only exist in physics through the interaction of other particles are virtual particles (virtual photons, pools, etc.). Only the virtual particles are made of real elementary particles, and the mutual exchange of virtual particles occurs. The concept of virtuality is also used in the field of meteorology. The air temperature with certain moisture in this area is called a virtual temperature in the dry air temperature in accordance with the same pressure as other technical means.



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The computer's imaginable memory is accepted as a virtual memory; that is, it does not suit a physically separate memory carrier, which occurs as a result of mutual functional exposure of computer elements. Thus, through soft tools that create a virtual memory, the person will be able to use a very huge amount of information. All modern computers are equipped with a special Java virtual machine. In education, film companies and virtual reality elements based on various illustrations have been used before. Computer techniques have made a difference in creating educational resources based on virtual reality by adding the capabilities of movement and sound-related information to the process of active impact on the learners.

Today's educational resources based on virtual reality can be classified as:

- Achieving virtuality full of first-level special technical means (including scenic display, special gloves and others);
- Making a voluminous image using three-dimensional (or stereoscopic) monitors or projects and special glasses;
- The third level is to demonstrate virtual reality based on the standard monitor or projection tool.

In turn, the problem of creating pedagogical software tools is divided into the use and further improvement of the functional theories:

- 1. Virtual reality design philosophy. Problems of convincing the learner to receive the information provided on the basis of modeling, and to convince him who is learning with the reality.
- 2. Mathematical modeling. Problems of research of mathematical models in modeling.
- 3. Theory of information reflecting. Problems of use and improvement of visualization methods aimed at building real images using graphic machines, using graphic car management in real conditions.
- 4. Psychology of a computer environment. The problems of considering the peculiarities of modern young people used to get used to the TV and computer monitor.
- 5. Virtual reality ecology. Problems of choice of an individual trajectory of mutual interaction with virtual reality.
- 6. The basic principles of the didactic. The practical practices of modeling software are formed by didactic principles that reflect the legislation of the educational process and should be considered as the basis. Didactic and



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methodological problems of determining the mutually acceptable value of the knowledge given in real and modeled forms are also a separate research direction. Today, the use of the concept of "virtual Business" against computer modeling has the most popular appearance. Under these conditions, human is an artificial three-dimensional or sensor environment in the emergence of virtual practice. To do this, it uses a virtual shaky, a special gloves or costumes as communication equipment. With the help of these devices, the human is fulfilled by the machine into the generally generated environment, in different directions, and starts various emotions under virtual events.

Virtual training is an important part of the modern education system and is actively used for traditional education alternative and additional. His role and importance can be explained through the following aspects:

- 1. Expand access to education: due to the possibility of distance learning, no one can learn from the geographical location. In remote areas or for various reasons, the science of thirsty young people will create a great opportunity for the science.
- 2. Provide a flexible and comfortable education environment: students can read themselves convenient time and place, which makes the learning process flexible. Those who are busy or other responsibilities allows you to study for the researchers.
- 3. Development of self-teaching and independent learning: virtual education helps to develop independent learning skills. The researcher will have the opportunity to reconsider the places where students read and do not understand.
- 4. Variety districts and width of educational resources: video lessons, interactive tests, e-books, simulations and other resources make the educational process fun and effective. Artificial intelligence and other modern technologies serve to further personalize the learning process.
- 5. Using modern technologies: Automation of the educational process on the basis of the establishment of interactive and innovative education through the virtual education, the ability to perform an individual approach based on the environment and artificial intelligence.
- 6. Improving the effectiveness of education: There is an opportunity to quickly analyze the results and determine the shortcomings through online evaluation systems for teachers and students. Teachers can organize education more interesting and effective through various interactive methods.



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- 7. Economic efficiency: Virtual education is economically saved than traditional teaching, because transport, living and textbooks are reduced. Electronic courses and resources can be created for long-term use and can be used processed by several students.
- 8. Integration to global education: virtual education allows cooperation with international educational platforms and universities. There will be a chance to learn from experts and teachers anywhere in the world.

#### Conclusion

The virtual education is a new and effective way to learn in addition to traditional education, or as a complete replacement, and through modern technology, the educational process is flexible, interactive and broad public.

Virtual Body is directly related to many areas such as human activity medicine, biotechnology, design, marketing, marketing, art history, ergonomics, entertainment industry. Virtual Believing technology is used effectively to model real and virtual process modeling computer games, space chants, exhibition and trade demonstrations.

#### References

- 1. Oʻzbekiston Respublikasi Prezidentining 2020 yil 29 oktyabrdagi "Ilm-fanni 2030 yilgacha rivojlantirish konseptsiyasini tasdiqlash toʻgʻrisida"gi Farmoni.
- 2. Z.F.Sharopova. "Ta'lim texnologiyalari" Toshkent-2019. 14-bet
- 3. Madraximova F.R. Mediasavodxonlikni rivojlantirish asoslari / monografiya.
- Toshkent: «Ilmiy ziyo zakovat», 2022.
- 4. N.O.Jo'rayeva. RAQAMLI TA'LIM MUHITIDA TALABALAR MUSTAQIL TA'LIMI TASHKIL ETISH USLUBIYOTINING O 'ZIGA XOS JIHATLARI. Educational Research in Universal Sciences, 2023. 39-45 bet
- 5. N.O.Jo'rayeva. SPECIFIC ASPECTS AND PRINCIPLES OF THE METHOD OF ORGANIZING INDEPENDENT EDUCATION OF STUDENTS.