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Use of Digital Technologies in Education

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Abstract: The article analyzes the advantages and disadvantages of digital technologies in education. The necessity of scientific substantiation of its introduction into the educational sphere is argued.

Keywords: modern education, digital technologies, globalization, digitalization model, blockchain.

One of the central places in the January Address of the President Sh.M.Mirziyoyev to the Parliament and people of Uzbekistan in 2020 was given to issues of digital development. It is also symbolic that 2020 in Uzbekistan was declared the Year of the Development of Science, Education and the Digital Economy. It was during this period that the fundamental documents were adopted that laid the legal foundation for further digital reforms.

On April 28, 2020, the Decree of the President of Uzbekistan "On measures for the widespread introduction of the digital economy and e-government" No. PP-4699 was adopted. This document outlines a range of topical issues related to the widespread introduction of digital technologies in the work of domestic enterprises and government services, the training of IT specialists, comprehensive support for IT entrepreneurship, and many others. [1]

The logical continuation of these works was the Decree of the President of the Republic of Uzbekistan dated October 5, 2020 "On approval of the Strategy "Digital Uzbekistan - 2030" and measures for its effective implementation". The large-scale policy document includes road maps for the digital transformation of priority economic sectors and regions. [2]

One of the most important areas of digital development in Uzbekistan is the education of highly qualified IT personnel. The first and important condition is the creation of a comprehensive system of continuous training of IT specialists within the framework of school, secondary specialized and higher education.

The foundation of school ICT education was laid with the creation of the Specialized School for the Advanced Study of Information and Communication Technologies named after Muhammad al-Khwarizmi in 2017. The modern building of the school meets the latest technological requirements, and advanced teaching methods are used here with the involvement of qualified foreign and domestic specialists. Education at the school is conducted from the 5th grade, and upon admission, candidates undergo a rigorous competitive selection. [4]

The introduction of digital technologies opens up one important circumstance that was not previously considered, but due to the current practice, it requires discussion in the scientific community. Traditionally, the teaching materials made a clear division into teaching methods and upbringing methods. From the standpoint of research and understanding of the regularities of these processes, this approach is beyond doubt. That is, an integrating approach is needed to classify the methods of personality formation, which would be understandable to a practicing teacher. In real practice, the educational process organically merges with learning; in the work of a teacher, for example, during a

lecture, educational and developmental tasks are set. To what extent and how the educational and developmental functions can be implemented using digital technologies for the development of the student's personality is not yet entirely clear and worked out. In fact, the integration of elements of practical psychology into the activities of a modern teacher is required. As you know, the most productive are research at the intersection of sciences and various areas, so the development of an integrative approach in the application of digital technologies for educational purposes is relevant. This is also an important task in the training of modern pedagogical staff.

So far, gaming digital technologies developed by programmers reflect the demand of young people and are poorly focused on the development and education of the individual, the formation of the necessary values of civil society and professional culture. We have to admit that the problem of game modeling in the professional field based on augmented reality (VR) technologies is poorly developed and does not reflect the needs of professional communities.

In matters of digital development of the state, the most important role is given to artificial intelligence (AI) technologies, which allow scaling tasks and monitoring processes. AI technologies are increasingly being used in Uzbekistan today: a number of domestic enterprises are actively implementing M2M technologies (machine to machine) in production and management processes. However, all these actions until recently were fragmented.

The Decree of the President "On measures to create conditions for the accelerated introduction of artificial intelligence technologies" (No. PP-4996, February 17, 2021) laid the foundation for the further development of the AI industry and defined the main directions. [3]

Since AI technology is a very knowledge-intensive industry that requires highly qualified personnel and sufficient material and technical resources, the Research Institute for the Development of Digital Technologies and Artificial Intelligence under the Ministry for the Development of Information Technology and Communications was established. In the process of introducing digital technologies, questions arise related to the ethics of information, the protection of personal data, and the legal aspects of the competition of educational institutions.

This also includes blockchain technology. Blockchain is a technology for encrypting and storing data distributed over many computers connected in a common network. Records in the blockchain are presented in the form of blocks interconnected by special keys.

The technology is used to store and transfer digital assets and can operate both in a public network and in a private one. Blockchain can be used in many areas where the speed of information transfer with a high degree of protection is required. The whole range of existing problems of the e-education system can be conditionally divided into two groups: current and inherent in the specifics of the university. The composition of the current problems can include methods for simulating offline education, that is, as a result of copying offline education methods, the whole set of shortcomings is obtained.

Such as poor quality control of existing educational products, low interactivity of students and primitivization of students' competencies. The rapidity with which digital technologies are immersed in the education system today gives grounds for the need for their scientifically based implementation in current educational activities.

In practice, the digitalization of the educational environment in various forms is shown in Figure 1.

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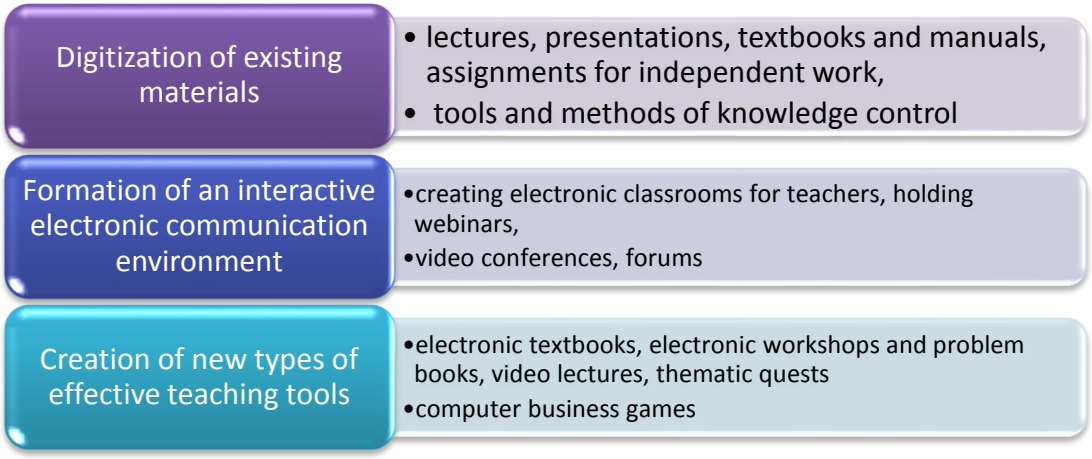

Rice. 1 Forms of digitalization of the educational environment

Currently, in most educational institutions, the digitalization process, unfortunately, takes place mainly in the first two forms. [5]

It should be noted the goals achieved by the higher educational institution through the development of digital technologies in education. (Fig. 2)

Rice. 2 Goals achieved by a higher educational institution through the development of digital technologies in education

Discussion. Undoubtedly, the advantages of e-learning include solving the problem of accessibility, expanding opportunities for choosing a profession, and the like.

The tasks that are set for digital technologies are given below:

- develop new regulations and principles for data processing, taking into account the requirements for the protection of personal information in the context of transferring workflow to a digital format, taking into account the principle of non-redundancy at all levels of process management;
- make a list of data necessary for the exchange of data used in the field of education;
- to develop an architecture for the digitalization of the educational system, which allows you to flexibly replace the systems in its composition and expand their composition;
- develop data exchange protocols and approve them as an industry standard;
- develop the rules of procedure for the commissions on protocols so that they can make timely changes to previously approved protocols/standards;
- develop and put into operation test systems for debugging data exchange protocols so that developers can compete successfully;
- reconsider approaches to the formation of digital technologies in educational institutions towards the logic of BYOD based on mobile devices and the ability to independently spend funds on IT infrastructure;
- to revise the regulatory framework for document management and organization of the educational process to eliminate conflicts between the old norms of the paper era and modern electronic document management.

It should be noted that the introduction of digital technologies is very important for the development of the system of higher and professional education, but along with this, it is necessary to form a scientifically based approach to their implementation. Improving training based on a cultural approach will allow the formation of digital smart didactics, the introduction of blockchain technology, which should become the basis for the development strategy of modern educational organizations. Blockchain opens up prospects for the development of network forms of interaction between scientific, educational and industrial organizations for the training of innovative personnel. A number of aspects look much better in this situation: copyright preservation, prevention of plagiarism, the formation of innovative products by students in the process of internships and internships, etc.[5]

Conclusion. Today, our country needs highly professional personnel, so the task of science is not only to transfer the best foreign practices to our conditions, but also to develop a science-based advanced educational strategy based on the best domestic scientific schools and advanced digital technologies

LITERATURE

1. Decree of the President of Uzbekistan "On measures for the widespread introduction of the digital economy and e-government" No. PP-4699 dated April 28, 2020
2. Decree of the President of the Republic of Uzbekistan "On approval of the Strategy "Digital Uzbekistan - 2030" and measures for its effective implementation" dated October 5, 2020
3. Decree of the President "On measures to create conditions for the accelerated implementation of artificial intelligence technologies" No. PP-4996, February 17, 2021

4. Decree of the President of the Republic of Uzbekistan No. UP-6079 dated October 5, 2020 “On approval of the Digital Uzbekistan-2030 strategy and measures for its effective implementation” // Narodnoye Slovo, 2020.
5. Sultanova, S. M., Babakhanova, N. U., Alikulov, K. R. (2022). Digital technologies in modern education. Academic Research in Educational Sciences, 3(10), 687–696. https://doi.org/
6. Sharonin Yu.V. Digital technologies in higher and professional education: from personality-oriented smart-didactics to blockchain in targeted training of specialists / Yu.V. Sharonin // Modern problems of science and education. - 2019. - No. 1