

METHODS OF USING DIGITAL INFORMATION TECHNOLOGIES IN THE  
EDUCATION SYSTEM

**Usmonov Sodik**

Associate Professor of Jizzakh State Pedagogical University

**Kurbanov Amirbek**

Master's student of Jizzakh State Pedagogical University

In the 21st century, the educational landscape has fundamentally changed with the advent of digital information technologies. From primary schools to universities, digital technologies have become indispensable tools for teaching, learning, and research. The importance of these technologies in education cannot be overestimated, as they revolutionize traditional pedagogical methods, expand educational opportunities, and prepare students for the rapidly developing digital world. Through the text of this article, the implementation of information and communication tools in the education system, the possibilities of applying and using global standards, and its achievements are recognized..

**Keywords:** digital technology, lesson, internet, education system, hemisphere system, computer science, smart whiteboards, information literacy, IT centers, online, offline education, digitalization.

В 21 веке образовательный ландшафт радикально изменился с появлением цифровых информационных технологий. От начальных школ до университетов цифровые технологии стали незаменимыми инструментами преподавания, обучения и исследований. Важность этих технологий в образовании невозможно переоценить, поскольку они революционизируют традиционные педагогические методы, расширяют возможности обучения и готовят учащихся к быстро развивающемуся цифровому миру. В тексте данной статьи признается применение средств информационной коммуникации в системе образования, возможности применения и использования универсальных стандартов, а также ее достижения.

**Ключевые слова:** цифровые технологии, урок, интернет, система образования, система Nemis, информатика, смарт-доски, информационная грамотность, ИТ-центры, онлайн, офлайн-обучение, цифровизация.

The state of development of modern technologies depends, first of all, on the intellectual potential of society, that is, on the development of the education sector. Issues of content and quality of education are considered as a priority area. In developed and developing countries of the world, special attention is paid to the informatization of education. Ways to develop education and increase its effectiveness are being considered, and special attention is paid to the introduction of new information technologies in education. In March 2019, the President of the Republic of Uzbekistan put forward five important initiatives. This includes the tasks of widely involving young people in culture, art, and sports, forming their skills in the correct use of modern information technologies, raising the culture of reading, and ensuring women's employment. A number of effective measures being implemented within the framework of the third initiative of the Five Initiatives play a very important role in increasing the computer knowledge and intellectual potential of the younger generation. Digital information in education is being formed in such a way that today's youth are not limited to studying and simply memorizing old information and manuals, but use the opportunity to independently search for new knowledge and draw conclusions from the information received. Information technologies open up great opportunities and interests for this. Therefore, in our country, not only in higher education institutions, but also in general education institutions, attention to information and computer science technologies is increasing, and specialized schools are being gradually

established for in-depth teaching. Digital technology is a modern form of economic management, in which the main factor of production and management is a large set of digital data and the process of their processing. This is an augmented reality technology that allows adding objects from the virtual world to the real world. The introduction of digital information technologies into the educational process creates several advantages:

- Opportunity to study in any direction at any time;
- The education system will be raised to a new level;
- The possibility of obtaining and using information on the Internet will be formed on Earth;
- Time and money are significantly saved;
- The opportunity to search for and find useful work is created.

In the educational process, students with a high level of "information literacy" do not face any difficulties in acquiring knowledge, searching for and finding information, and applying it in the educational process. For this reason, hundreds of information technology and computer science teachers are being incentivized by the Information Technology Development Fund and the IT Center. The transition of our country to a modern education system and the use of world standards eliminates the problems encountered in education today and opens the way for new approaches. To date, the "Hemis" system has been introduced in higher education, which has created the opportunity for students to study remotely (online) or traditionally (offline) in any conditions, has created many conveniences for professors and teachers, and has reduced paperwork. The Hemis system is being gradually implemented in all state educational institutions, including non-state ones. The process of developing the "Digital Uzbekistan-2030" program is actively ongoing. In order to increase the number of digital universities, agreements have been concluded with a number of foreign universities, and cooperation is being carried out. At the same time, opportunities have been created for socially vulnerable segments of the population and women to receive additional education without interrupting their work. Indeed, the development of the digital economy requires the effective and productive use of digital technologies. Effective use of digital technologies requires specialists to have strong knowledge and experience in the field of such technologies. Highly qualified specialists in interdisciplinary fields are trained in educational institutions. Therefore, the introduction of digital technologies into the education system serves as a necessary factor in achieving our goals. Considering these goals aimed at the advancement of our country, in the further improvement of activities aimed at the introduction of digital technologies in all areas of the education system, the state pays special attention to the following: firstly, further increasing the speed of the Internet in our country and raising the quality of communication to a high level, in a word, a high level of provision of services provided by the Internet social network; secondly, ensuring a strong integration of digital technologies and educational technologies with the IT sector, creating additional conditions for the further improvement of activities aimed at the continuous development of the professional skills of teachers in this area; Thirdly, it is necessary to successfully solve such tasks as the regular organization of courses aimed at improving the qualifications of teachers in the creation of interactive - multimedia presentations for lectures or seminars on topics that embody the importance and benefits of the IT sphere and digital technologies, as well as the procedures for their use. Only then can we achieve the education of young people at the level of today's requirements by introducing digital technologies into the education system, using them, and applying them in practice. In order to organize and manage distance learning, a concept for the implementation of distance learning has been developed at the Tashkent University of Information Technologies named after Muhammad al-Khwarizmi. Through the system, students have the opportunity to fully participate in classes, present thematic materials, and carry out educational tasks, exams, and reports using remote information technology tools. In order to develop this system, in the 2023-2024 academic year, more than 420 video tutorials were

prepared in several subjects, posted on the platform in Uzbek and Russian, and tested in practice. At the same time, the experience of the Inville system used in South Korea was studied, and work was carried out to adapt it to the educational process. Based on this experience, pilot projects are being implemented in a number of educational centers. Currently, an average of more than five thousand personnel are trained annually in the field of Computer Science and Information Technologies, of which about 70% are at the Tashkent University of Information Technologies named after Muhammad al-Khwarizmi. To date, more than 200 thousand people are studying in IT fields through the [www.uzbekcoders.uz](http://www.uzbekcoders.uz) portal within the framework of the "One Million Programmers" project.

The structure of computer classrooms in educational institutions, equipped with modern and convenient equipment, modern computers, smart boards, and several panels, once again creates a stimulating foundation for learning. For this reason, most students prefer innovative education based on information and communication technologies to traditional education, which requires wider use of foreign standards in our country. In conclusion, it can be said that distance learning is necessary not only for educational institutions today, but also plays an important role in today's globalization process for large enterprises and institutions in retraining their specialists, maintaining their level of knowledge and skills at a high level.

In conclusion, as mentioned above, while education was previously studied through large-volume lecture books, this, in turn, led to not very high quality and speed of education. Currently, in order to increase the effectiveness of education, all necessary work is being carried out on the digitalization of education. It will be possible to satisfy the voluntary educational needs of all segments of the population. It is possible to disseminate knowledge to the general public in a timely manner. Even if the student and teacher are separated from each other by distance from these platforms, constant communication is maintained.

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