

THE ROLE OF DIIGITAL EDUCATIONAL TECHNOLOGIES IN THE
ORGANIZATION OF HIGHER EDUCATION

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Abstract

This article analyzes the importance of digital educational technologies in the higher education system, their role in improving the quality of education, their advantages, challenges in implementation, and future development prospects. It also highlights the significance of modern information and communication technologies in improving the educational process.

Keywords

digital education, distance learning, higher education, innovative pedagogy

In today's era of globalization, the rapid development of information and communication technologies is bringing significant changes to the education system. In particular, the use of digital technologies in higher education institutions is an important factor in improving the quality of education, expanding learning opportunities, and preparing modern specialists.

Today, the process of digitalizing education is rapidly developing worldwide. In particular, UNESCO recognizes the digitalization of education as one of the key directions of global development. Therefore, the introduction of digital educational technologies in higher education institutions is considered one of the priority directions of modern educational policy.

According to B.E. Starichenko, in order to live comfortably in modern society, a person should possess the following qualities: the ability for critical and independent thinking, a broad professional outlook, knowledge of technologies for searching, collecting, storing, processing, and using information, readiness to take responsibility for the results of one's activities, as well as the ability for independent learning and internal motivation.

The digitalization of professional education, based on continuous information training, includes the following principles:

- Formation of an information culture among future teachers that corresponds to modern standards and prospects of digital technology development
- Orientation of higher professional education towards preparing specialists who can use digital technologies and tools in their professional activities

Main Part

Currently, informatization of all spheres of society, development, and implementation of new information technologies are progressing rapidly worldwide. Computer technologies have brought significant changes to industrial production, business, social life, education, science, and culture.

Today, the importance of digital technologies in society is steadily increasing. The current level of development of information and communication technologies is accelerating the digitalization of various sectors and demonstrates that modern life cannot be imagined without the global Internet.



Educational institutions, especially during the coronavirus pandemic, were forced to shift to the digital environment.

One of the key tasks today is the implementation of the “Digital Uzbekistan – 2030” strategy, which covers all sectors. The realization of such a large-scale project contributes to the comprehensive development of the national economy and ensures its competitiveness.

At the presentation held on June 8, 2022, on the development of information technologies and the digital economy, the importance of rapidly transferring essential public services into electronic form was emphasized.

Current trends in the development of ICT — including the expansion of global networks, widespread use of cloud and mobile technologies — are explained by:

- increasing demand for internet use
- relevance of ensuring information security
- rapid development of artificial intelligence technologies
- expanding use of virtual reality tools

Cloud technology enables services such as data storage, software access, computing services, system recovery, and data exchange between users to be carried out virtually via the Internet.

Since 2008, the term “cloud technology” has become widespread globally. Essentially, it allows fast, convenient, and efficient use of system resources such as servers, applications, storage systems, and services via the Internet.

The Essence of Digital Educational Technologies

Digital educational technologies involve the use of:

- electronic tools
- internet resources
- multimedia technologies
- distance learning systems
- virtual platforms
- interactive learning programs

These technologies enable effective organization of the educational process, rapid delivery of knowledge, and automation of learning.

Through the digital learning environment, students can independently acquire knowledge, improve their skills, and strengthen their understanding. At the same time, communication between teachers and students becomes faster, increasing overall educational effectiveness.

Importance of Digital Technologies in Higher Education

Digital technologies:

- ensure transparency and openness in education
- enable interactive presentation of learning materials
- support distance learning
- develop students’ independent learning skills
- improve the quality of education
- enhance modern professional competencies

They also allow the individualization of the learning process, enabling students to learn according to their abilities and knowledge levels.

Advantages of Digital Educational Technologies

1. Improved learning effectiveness through multimedia tools
2. Flexible learning — access anytime and anywhere
3. Development of digital literacy
4. Efficient use of time and resources
5. Modern assessment methods



Challenges in Implementation

- Insufficient technical infrastructure
- Low internet speed
- Limited digital competence of teachers
- Information security issues

To overcome these challenges, it is necessary to improve technical resources, enhance teacher training, and develop digital education infrastructure.

Future Prospects

In the future, the following are expected to become widespread:

- Artificial intelligence
- Virtual laboratories
- Electronic libraries
- Adaptive learning systems
- Digital learning platforms

These will contribute to improving education quality and creating an innovative learning environment.

Conclusion. The use of digital technologies in higher education is a key factor in modernizing the education system. They play an essential role in improving educational quality, organizing learning effectively, developing students' independent thinking, and preparing competitive specialists.

Therefore, the broad implementation and continuous improvement of digital technologies remain one of the main directions of modern educational development.

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