

THE ROLE OF INFORMATION TECHNOLOGIES IN EDUCATION

Muminova Malika Rashidovna

Independent researcher

d.obloqulova@68.com

Abstract. *This article analyzes the place and significance of information technologies in the field of education, as well as their role in the development of the modern education system. It scientifically substantiates that the quality, efficiency, and interactivity of education are increasing as a result of the integration of information technologies into the educational process. The potential of distance learning, electronic platforms, multimedia tools, and artificial intelligence technologies in the educational process is also highlighted. The study examines the positive impact of information technologies on the activities of students and teachers and reveals their synergy with modern pedagogical approaches.*

Keywords: *information technology, education system, digital education, distance learning, multimedia, e-learning, innovative pedagogy, artificial intelligence.*

In today's era of globalization and digitalization, information technologies are becoming an integral part of the education system, alongside all other spheres of society. It is difficult to imagine modern education without computer technologies, internet resources, and electronic platforms. This is because information technologies not only expand learning opportunities but also enhance the effectiveness of the educational process.

In recent years, the global demand for digital education has increased significantly. In particular, the development of distance learning systems and the widespread use of electronic textbooks, virtual

laboratories, and multimedia tools have elevated the quality of education to a new level. In Uzbekistan, the integration of information technologies into the education system is also considered a key direction of state policy.

As President Sh.M. Mirziyoyev has noted, it is difficult to achieve progress without mastering modern knowledge and technologies. Therefore, digitalizing the education system, expanding electronic resources, and widely introducing innovative technologies into education are among the most pressing tasks of our time.

This research employed analytical, comparative, and descriptive methods. The role of information technologies in the education system was studied based on scholarly sources and comparatively analyzed with modern pedagogical approaches. Furthermore, the impact of e-learning platforms and digital technologies on the educational process was examined from a scientific and theoretical perspective.

Information technologies serve to organize the educational process in a manner that is fast, convenient, and effective. Through computers, tablets, interactive whiteboards, and internet resources, students can quickly and easily find the necessary information. This, in turn, helps develop independent learning skills.

The use of multimedia tools in modern education is also of great importance. Information presented through audio, video, animation, and graphic materials is more quickly absorbed by students and retained in their memory for a longer period. The effectiveness of multimedia technologies is particularly high in teaching foreign languages, as well as in technical and natural sciences.

As a result of the advancement of information technology, distance learning systems have become widely popular. Today, platforms such as

Moodle, Google Classroom, and Zoom make it possible to receive an education from anywhere in the world. This has significantly reduced the challenges of time and distance.

Distance learning demonstrated its critical importance, especially during the pandemic. The continuity of the educational process was ensured precisely through information technologies. At the same time, online education also serves to develop independent work skills, proper time management, and digital competencies in individuals.

In recent years, artificial intelligence technologies have also been actively integrated into the educational process. Chatbots, intelligent testing systems, and automated assessment programs are helping to facilitate the learning process. Artificial intelligence is expanding the potential to identify students' individual abilities and develop tailored educational strategies for them.

Additionally, electronic libraries and digital databases provide significant convenience for students and researchers conducting scholarly work.

The analysis has shown that information technologies are a crucial factor in enhancing the quality and effectiveness of education. They foster students' independent thinking skills, increase the interactivity of lessons, and help to organize the educational process more conveniently.

Furthermore, information technologies:

- provide broad access to educational resources;
- strengthen communication between students and teachers;
- expand opportunities for distance learning;
- contribute to saving time and money;
- develop modern professional competencies.

However, certain challenges also arise in some regions, such as low internet speeds, a shortage of technical equipment, and varying levels of digital literacy.

In conclusion, information technologies have become an essential component of the modern education system. Their widespread integration into the educational process serves to improve the quality of knowledge, create an interactive learning environment, and expand students' opportunities for independent study. Therefore, developing digital technologies within the education system, increasing electronic resources, and enhancing educators' IT competencies remain some of the most pressing tasks of our time.

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