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IBI (India) = 4.260
OAJI (USA) = 0.350

SOI: [1.1/TAS](#) DOI: [10.15863/TAS](#)

International Scientific Journal Theoretical & Applied Science

p-ISSN: 2308-4944 (print) e-ISSN: 2409-0085 (online)

Year: 2023 Issue: 05 Volume: 121

Published: 07.05.2023 <http://T-Science.org>

Issue

Article



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ROLE OF DIGITAL TECHNOLOGIES IN THE DEVELOPMENT OF HIGHER EDUCATION

Abstract: This article examines the issues of the widespread introduction of information and communication technologies into the higher education system in the conditions of the informative space and the implementation of large-scale digitalization through them. The problems observed in this direction are also highlighted, conclusions are drawn and a number of proposals for overcoming them are substantiated.

Key words: information society, information and communication technologies, digital technologies, education, digitalization of the education system, educational process, traditional didactics, innovative changes, development of higher education, Information culture, electronic provision of education.

Language: English

Citation: Abdurahmonov, Z. B., & Yusupov, S. Sh. (2023). Role of digital technologies in the development of higher education. *ISJ Theoretical & Applied Science*, 05 (121), 40-43.

Soi: <http://s-o-i.org/1.1/TAS-05-121-7> **Doi:**  <https://dx.doi.org/10.15863/TAS.2023.05.121.7>

Scopus ASCC: 3304.

Introduction

The rapid development of modern information and communication technologies (ICT) in the conditions of the information society makes it possible to manage the educational process in educational institutions based on an innovative form. At the same time, it gives education its own attractiveness and modern aspects.

The main part.

If we look at the brief history of the application of information technology to the educational process (in the example of technical educational tools), at first the overhead projector or epidiascope was used to provide the opportunity to present educational materials, and at a later stage the use of computers, PowerPoint we can show electronic projector, electronic whiteboard, e-mail, internet, webinar, teleconferences and distance education technologies that allow to present the created visual materials.

Regional features of industrial production dynamics in the research of textile enterprises financial security in Uzbekistan were investigated by Zarova E. V. [7], Tursunov, B. O. [6] and others. But role of digital technologies in the development of higher education were researched not much.

Digital education should be based on the concept of technological education, which is different from the traditional approach to organizing the educational process, which has been widespread in recent centuries. Modern innovative communication educational technologies are mainly based on philosophical and psychological concepts developed since the middle of the twentieth century. These include pragmatism and instrumentalism, cognitivism, constructionism, connectivism[1].

Enrichment of the higher education institution with information media and technologies serves the student's adaptation to the rapidly changing digital world and the formation of his information culture [2].

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The introduction of information and communication technologies into the educational process creates advantages:

- makes the educational process more modern, diverse and enriched;
- significantly expands the possibilities of providing educational and educational information;
- allows working with large volumes of information, influencing different forms of human memory, different channels of perception;
- makes the educational process more interesting for students and makes it possible to increase their motivation;
- helps students and pedagogues to adapt to modern information space and to form information culture;
- makes it possible to more effectively implement the system of diagnostics and monitoring of the educational process;
- allows to increase the quality and efficiency of pedagogical work.

In recent years, we can admit that the new paradigm of education based on the interactive cooperation of teachers and students has taken priority positions in the theory and practice of pedagogy. Its goals and objectives are focused on active activities,

increasing the effectiveness of teaching, developing students' intellectual (analytical, critical, creative, flexible), communicative (ability to work in teams, including international, interprofessional), informational (needful information search, information analysis and processing, summarization, systematization and information exchange) creates opportunities aimed at developing competencies.

Digitization of the educational process provides an opportunity to expand the boundaries of communication for its participants. Interactive communication in the process of information exchange opens up new opportunities for launching scientific debates, communicative culture, development of information and communication competences, formation of psychological relationships, teamwork environment [3].

According to a number of researchers, only when all information and communication technologies used in the educational process are formed in the form of a system that is interconnected and focused on a single goal (concept) and regularly when its effectiveness is monitored, it will bring the higher education institution to a new level in terms of quality. Solving this problem creates opportunities to activate different directions of the educational process [4].

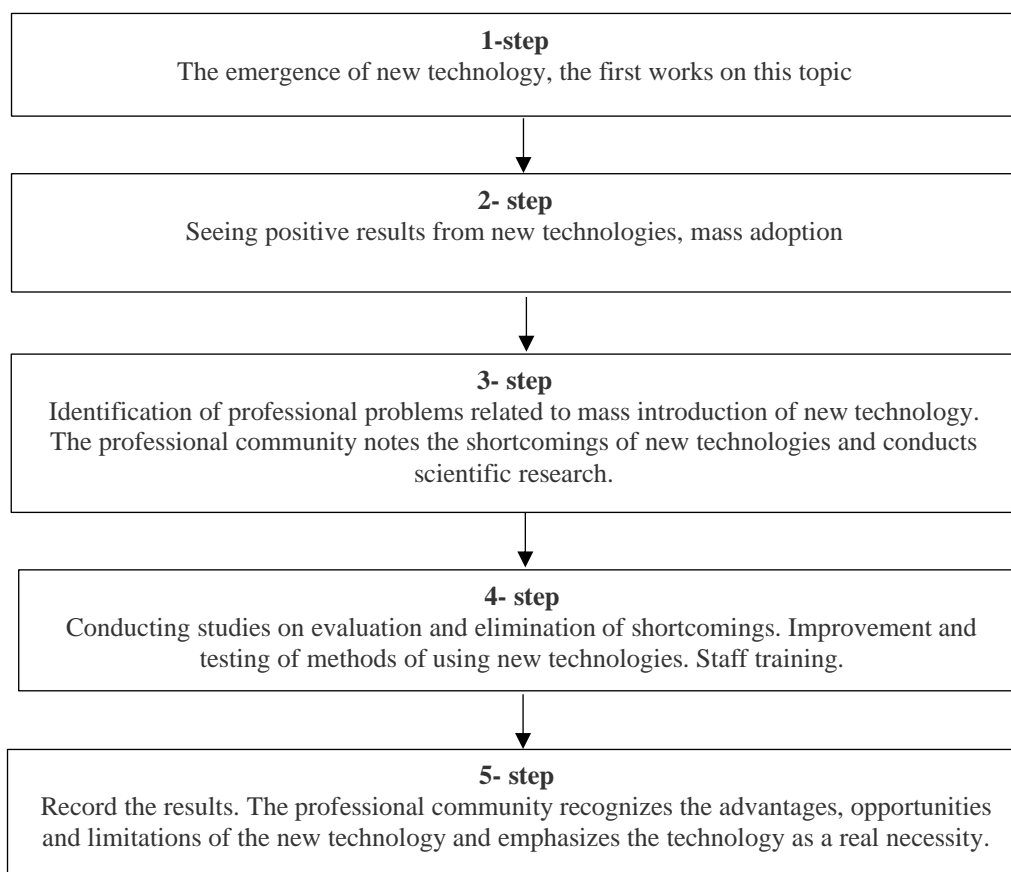


Fig.1. Stages of development and application of technological innovation

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Axborot-kommunikatsiya texnologiyalari asosida zamonaviy oliy ta'lim muassasasida ta'lim-tarbiya A unified information space that allows for significant modernization of processes should include:

- information resources including regulatory and legal information and methodological and didactic developments;
- organizational and management tools and organizational center responsible for the operation and development of the virtual space, which ensures the processes that regulate the flow of information;
- methodological resources;
- software and technical support (telecommunication resources, set of technical and software tools);
- means of communication that enable rapid transfer of information and communication [5].

Like any innovation in educational and educational processes, the active application of digital technologies in the educational process faces a number of obstacles. During empirical research, it became possible to identify the factors that contribute to the adoption and use of these technologies by pedagogues in their pedagogical activities. These are the following:

- factors related to digital technologies themselves (uniqueness and novelty, reliability, usefulness and simplicity, simplification of thinking processes and planning, ensuring time saving);
- factors related to the organization of the use of digital technologies (support of the idea by the educational institution and the use of these technologies by their colleagues, technical support, information- creation of complete educational programs for working with communication tools);
- factors related to pedagogues introducing digital technologies (ability to use resources and confidence in improving the quality of education, compliance with the philosophy of digital education of this teacher);
- factors related to the lack of specific scientifically based procedures for pedagogical examination of the developed electronic educational resources (continuity of software tools within the framework of the implementation of educational activities, programs and events);
- directing electronic educational resources to the traditional educational and educational environment (in terms of goals, content, forms and methods). Factors related to orientation to the use of potential capabilities of electronic educational resources (visualization, control automation, model features);
- temporary factors (creating and testing quality educational resources takes a lot of time).

Along with the didactics of digital education, the concepts "digital transformation of education", "digitalization of education", "digitalization of teaching" and similar concepts appeared.

Any technological innovations can be considered in terms of the realization of their development stages and expected results, as well as the level of interest from experts and society.

If we analyze these stages from the point of view of digital technologies, it can be noted that we are currently in the third stage. Because, on the one hand, we have an objective assessment of the possibilities, advantages, and effectiveness of digital technologies, and on the other hand, due to the lack of serious scientific approaches implemented globally at all levels of education, the loss of achievements in traditional education, various risks we can emphasize that there are problems of failure to consider risks.

Digitization makes it possible to draw conclusions based on the analysis of the development characteristics and problems of higher education in the period:

First, the use of modern information and communication technologies allows to expand the scope of students' academic and extracurricular activities, to turn the educational process into an interactive, independent, creative activity.

Secondly, the modern level of ICT development expands access to educational, vocational and training resources, ensures the integration of the national education system into the world network, significantly facilitates the use of international resources in the field of education, culture and training.

Thirdly, ICT changes the foundations of the traditional education and training process. Their use leads to overcoming barriers of age, time and space, to the constant search for new and effective forms of organizing the personalized process of teaching, educating and socializing a student in higher education institutions.

Fourthly, changes to improve the educational process in modern higher education institutions require the development of new methodological approaches to teaching and, accordingly, the development of new educational technologies and organizational forms of building the educational process.

Fifth, the practice of introducing innovative models of education and new forms of organizing the educational process is based on the use of advanced information and communication technologies, network services and funds. They are implemented as part of an interactive educational space that provides a real opportunity to improve the consistency of the content, methodological and technological components of education and the quality of the educational space.

Sixth, the impact of information and communication technologies on the educational process is not limited to the modernization of teaching tools, forms, methods and technologies. This leads to the internal development of educational institutions

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and their transformation into educational and educational communities.

Conclusions

In addition to these conclusions, the following recommendations are considered important for the successful development of the experience of using new information technologies in the educational process:

- creation of material, technical and organizational conditions for the introduction of ICT into the educational process;

- purposeful formation of a bank of digital educational resources, among which the author's methodology and software should occupy a special place;

- organization of wide use of computer equipment, corporate information-educational environment by students and teachers, providing access to the Internet global information network;

- creating conditions for regular communication with the participants of the educational process (including the use of its network forms) in order to exchange experience in the field of ICT application in the pedagogical process.

Thus, in the era of modern digitization, which is rapidly moving forward, the widespread introduction of information and communication technologies into education is one of the priority directions that ensure the transformation of a higher education institution into a high-quality educational and educational space.

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