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# MODERN TRENDS IN ENHANCING THE DIGITAL COMPETENCE OF SCHOOL TEACHERS IN OUR COUNTRY

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## Abstract

This article examines the necessity of enhancing the digital skills of school teachers in Uzbekistan and explores modern educational trends. It highlights the benefits of integrating digital technologies into the educational process to increase students' engagement and academic performance. Additionally, the article analyzes ongoing initiatives aimed at equipping teachers with digital competencies through online courses, interactive tools, and national and international projects. These trends are evaluated as effective measures to prepare educators for the digital age and demonstrate their role in improving the quality of education in Uzbekistan.

## Keywords

Digitization, digital age, quality of education, COVID-19, pandemic, strategy, standard, DigCompEdu, ISTE, gamification, MOOC, Coursera, edX, Udemy, Google, Microsoft, Education, Virtual, cloud technology, electronic platform.

## INTRODUCTION

Digitalization is the introduction of digital technologies into various spheres of life, including the economy, all stages of education, culture, healthcare, tourism, agriculture, services, and other processes.[1]. In our country, enhancing the digital competencies of school teachers is one of the most important issues of the modern education system. This topic is considered relevant for several reasons.

The need to adapt to the digital age. In today's globalized world, technology has become an integral part of the education system. Modern students are growing up in a technology-driven environment; therefore, it is essential for teachers to know how to use digital tools effectively.

Improving the quality of education. Digital technologies make the learning process more interactive and personalized, enabling higher levels of student achievement. When teachers have strong digital skills, they can explain learning materials more easily and engage students more effectively.

The experience of the COVID-19 pandemic. During the pandemic, the importance of distance education increased. This period showed that teachers' knowledge of and ability to use digital technologies affects not only educational requirements but also the continuity of the learning process.

Alignment with the Development Strategy of the Republic of Uzbekistan. In Uzbekistan, digitalization and the modernization of the education system are among the priority areas. In the

[1] The "UZBEKISTAN – 2030" Strategy approved by Decree No. PF-158 of the President of the Republic of Uzbekistan dated 11 September 2023: https://lex.uz/ru/docs/-6600413

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"Development Strategy of the New Uzbekistan for 2022–2026,"[2] great attention is being paid to the development of the digital education system. This requires training teachers in accordance with the demands of the new era, mastering modern information technologies, and actively using digital systems.

Striving for international standards. Worldwide, extensive experience has been accumulated in training teachers with digital competencies. For example, in the European Union the DigCompEdu model, and in the United States various programs, are активно developing the professional development of teachers. Studying this experience is essential for the development of digital education in Uzbekistan.

The European Union's "DigCompEdu" model. This model was developed by the European Union and serves to identify and develop teachers' digital competencies. It provides teachers with guidelines for the effective use of digital technologies in the educational process.

In the United States, standards such as the ISTE Standards for Educators support the development of teachers' digital skills. These standards, developed by the International Society for Technology in Education (ISTE), are applied worldwide in the field of educational technologies[3]. The chosen topic is highly relevant not only for improving the quality of education today, but also for preparing a competitive generation in the future. Supporting this process is the key to adapting teachers to the digital age.

In today's era of globalization and rapid technological development, the digitalization of the education system is becoming a necessity of the time. Around the world, the transition to digital education has become an important factor in modernizing the learning process and increasing the effectiveness and quality of education. In Uzbekistan as well, great attention is being paid to the digitalization of the education sector as part of the strategy for developing the digital economy and innovative technologies. One of the most important aspects of the transition to digital education is the development of teachers' digital skills. This is because school teachers not only manage the teaching process, but also create a foundation for students to succeed in the digital world by educating them with the help of modern technologies. Enhancing teachers' digital literacy enables them to use interactive tools in lessons, deliver learning materials through innovative methods, and make the educational process more engaging and effective for students. In addition, the experience of distance education during the pandemic clearly demonstrated the necessity of developing digital skills in Uzbekistan. If teachers do not master modern technologies and integrate them into the educational process, the risk of falling behind in global competition will remain. Therefore, the transition to digital education and preparing teachers for this process is recognized as one of the priority directions of the national education system.

## Main Part

In the modern education system, the use of digital technologies is of great importance for increasing the effectiveness of the learning process and making it more engaging. These technologies not only raise students' interest, but also help teachers manage the educational process more efficiently.

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[2] Resolution of the President of the Republic of Uzbekistan No. PQ-4699 dated 28 April 2020 "On Measures for the Widespread Introduction of the Digital Economy and E-Government": https://lex.uz/docs/-4800657

[3] "Do You Know the Terms and Concepts Related to the Digital Economy?" – article, https://mitc.uz/uz/news/1554
, by Nurulla Abdullayev, Adviser to the Minister of Information Technologies and Communications Development

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First, digital technologies make it possible to organize lessons in an interactive format, which ensures active student participation. For example, elements of game-based learning (gamification)[4] help make complex topics easier to understand. In addition, audiovisual materials—such as animations, videos, and interactive slides—play an important role in making the subject matter more engaging and comprehensible.

Second, digital tools contribute to increasing the effectiveness of the educational process. The possibility of an individualized approach ensures that each student is provided with materials that match their level of knowledge. Real-time assessment enables teachers to monitor each student's progress and promptly address problems when necessary. At the same time, distance learning platforms create broad opportunities in situations such as pandemics or for overcoming geographical limitations.

Third, digital technologies help deepen students' knowledge and develop their critical thinking skills. They gain access to extensive information resources through scientific articles, e-books, and multimedia materials. Virtual laboratories, in turn, provide a safe and engaging environment for conducting experiments.

Moreover, digital technologies play an important role in developing students' creativity. Through the application of project-based learning methods, they generate ideas aimed at solving real-world problems. Integrating digital technologies into the educational process not only increases students' engagement in learning, but also develops their creativity and critical thinking skills. This, in turn, becomes a key factor in achieving the main objectives of the modern education system.

**Current trends in improving digital competencies.** In the modern education system, improving digital competencies is of great importance, as technologies are rapidly evolving and the development of digital skills is a key factor in modernizing the learning process. Today, several contemporary trends can be observed in the enhancement of digital competencies.

First, online courses and learning platforms are becoming the primary tools for developing digital skills. Massive Open Online Courses (MOOCs) such as Coursera, edX, and Udemy[5] are creating new opportunities for teachers to expand their knowledge. These platforms help teachers enhance their digital competencies through interactive lessons, video materials, tests, and various resources.

Second, game-based learning (gamification)[6] is widely applied in improving digital skills. Learning digital competencies through game elements is not only engaging but also effective for students. Games increase learners' motivation and actively involve them in lessons. By using games on digital education platforms, teachers gain the opportunity to make the learning process more interactive and interesting.

Third, digital certificates and professional development programs represent another trend that helps teachers develop their digital skills. For example, **Google for Education** and

[4] Manba: OECD - Future of Education, OECD - The Future of Education and Skills 2030: https://www.oecd.org/education/2030-project/

[5] Massive Open Online Courses (MOOC) Platforms: Coursera: https://www.coursera.org edX: https://www.edx.org Udemy: https://www.udemy.com

[6] Gamification in Education: The Learning Guild - Gamification: https://www.learningguild.com Edutopia - Gamification: https://www.edutopia.org

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**Microsoft Education**[7] such as Google for Education and Microsoft Education offer special courses and certification programs to teach teachers how to work effectively on digital platforms. These programs train teachers in creating learning materials, managing the educational process, and using technologies efficiently.

In addition, **personalized learning** is being implemented more effectively with the help of digital technologies. Adaptive learning systems offer educational materials according to students' abilities and needs. This enables teachers to manage the learning process in line with the individual requirements of each student. For example, on online learning platforms, students' performance is analyzed and appropriate learning materials and assignments are recommended.

**Virtual and Augmented Reality (VR/AR)** technologies also play an important role in enhancing digital competencies. These technologies allow students to conduct scientific experiments in a virtual environment. Teachers, in turn, can apply new methods in delivering interactive lessons and use VR/AR technologies to capture students' attention. These tools help teachers become more innovative and effective in teaching.

**Social networks and digital collaboration platforms** also play a significant role in improving digital skills. Platforms such as Google Classroom, Microsoft Teams, and Slack provide teachers with opportunities to interact with students, organize lessons, and share resources. These platforms enable teachers to exchange experiences with one another, enhance their competencies, and learn new approaches.

Moreover, numerous projects developed by both the public and private sectors to train teachers in digital skills are becoming increasingly widespread. In countries such as Uzbekistan, professional development programs and courses are available to adapt teachers to the digital age. These programs train teachers to work on digital platforms, manage distance education, and create interactive lessons. Ultimately, **artificial intelligence (AI)** and automated systems create new opportunities for enhancing digital competencies. Through AI, teachers and students are offered possibilities to personalize the learning process, automate student assessment, and manage education more efficiently.

Modern trends in improving digital competencies encompass innovative approaches, new technologies, and resources. Tools such as online courses, game-based learning, digital certificates, VR/AR technologies, and social networks are creating new opportunities for teachers to develop their digital competencies. These trends serve to improve the quality of education, increase students' engagement in learning, and support teachers' professional development.

Thus, it is essential to accelerate positive changes in the education system by equipping teachers with digital skills. Introducing digital technologies into students' learning and providing teachers with modern pedagogical methods play a crucial role in improving educational quality and preparing for the digital age in the future.

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