THE FUTURE THROUGH DIGITAL TECHNOLOGY ENGINEERS PROFESSIONAL PREPARATION IMPROVING DEVELOPMENT METHODOLOGY

Uktamov Davronjon

Independent Researcher at Jizzakh Polytechnic Institute

uktamovdavronjonjiz@gmail.com

Phone: +998 88 074 50 54

A B S T R A C T	K E Y W O R D S
This article aims to identify priority areas for the development of the educational process, based on the use of digital technologies in the higher education system of our republic, their potential, and the forms in which they are implemented.	Digital technologies, information and communication technologies, higher education system, modern education, digital knowledge.

INTRODUCTION

The development of professional training through digital technology aims to prepare engineers in accordance with the requirements of the new time, the latest technologies and the information environment. The data of many international studies show that the success of the development of education in a given country depends, first of all, on the quality of teachers [1]. The effective integration of digital technologies into education allows to change pedagogical methods and open up new opportunities for students. In this regard, it is very important that teachers have the necessary competencies to actively use ICT in their professional practice, to ensure equal opportunities and high-quality education.

Effective integration of digital technologies into education changes pedagogical methods and opens up new opportunities for students. In this regard, improving methodologies for developing the professional training of future engineers through digital technologies can be achieved through the following methods:

Interactive learning: Digital technologies allow for the creation of interactive learning materials in the learning process. These can be interactive textbooks, visualizations, simulations, virtual laboratories, and trainers. This method makes learning more interesting, allows students to conduct exercises, experiments, and research on other algorithms and rules [2].

Adaptive learning: Digital technologies adapt the learning process to the individual needs of students Adaptive learning systems allow students to adapt their learning to their own needs and students to oneself about the originality data-driven They use algorithms to provide personalized materials, assignments, and feedback, allowing students to learn at their own pace and on the fundamentals that matter most to them.

Augmented and Virtual Reality: Augmented and virtual reality (AR and VR) allow students to create immersive learning environments. Students have access to 3D models, simulations, and virtual objects. The use of AR and VR in the learning process allows students to learn practical skills in real environments, study complex processes, and conduct virtual experiments [3].

Online platforms and learning resources: Digital technologies are transforming online platforms and learning resources. entrance opportunity gives. Students special courses study, They have the opportunity to watch lectures by famous experts, join forums, and contact other students and teachers. This expands the scope of learning and allows them to master new topics and concepts.

Online collaboration and project work: Digital technologies allow students to collaborate online, work on projects, and solve problems together with other students and teachers. Online collaboration develops students' communication and social skills and allows students to apply their knowledge in practice.

Analytics and Data: Digital technologies allow for the collection and analysis of data throughout the learning process. Analytics and data analysis help teachers and administrators assess student progress, identify areas of weakness, and track personalized changes to the curriculum.

At the same time, the use of digital technologies in the development of professional training requires introducing engineers to the requirements of the new time and training them in simple, fast, and effective ways. There are several important points in creating methodologies and textbooks for this purpose.

Selection and preparation: To attract students' attention during the selection process to develop themselves in the field of digital technologies.

Developing technologies study for suitable courses and resources presented Practice-based learning: Professional preparation study processes to practice justification, for example, projects, Creating projects aimed at solving existing problems for all users.

Teacher and students for virtual laboratories and online from resources use. Innovative technologies: laboratories, production facilities, and other resources to study the latest innovative technologies. Providing platforms for integrating IoT (Internet of Things), AI(Intelligent Intelligence), and other cutting-edge technologies .

Developing technologies practices to teach:

Developing professional training practices for various industries using emerging technologies to teach, for example, teachers or students for information analysis to grow and mental data processing [4].

Online resources and platforms:

Use of online textbooks, websites, and platforms, particularly in the field of emerging technologies.

Enhance student learning through interactive tutorials, webinars, and online learning technologies.

There are factors that confirm the superiority of digital educational technologies over traditional means in developing the professional competence of future engineers. These factors are divided into didactic, psychological, economic, and physiological groups.

The didactic requirements for digital technologies include: scientificity, understandable, rigorous and systematic presentation (ensuring the possibility of constructing the content of educational activities, taking into account the basic principles of pedagogy, psychology, informatics, ergonomics, and the fundamental foundations of modern science), continuity and integrity (they are a logical consequence and complement of previously learned knowledge), consistency, problematicity, demonstration,

activation (the presence of independence and active nature of teaching), consistency in the assimilation of learning outcomes, interactivity of communication, and the unity of teaching, upbringing, development, and practice [5].

Methodological requirements include: taking into account the specific characteristics of a specific academic discipline, taking into account the specificity of a particular discipline, the interdependence, interrelation, diversity, and implementation of modern information methods.

These methodologies provide students with the most important foundational skills for development. Digital technologies bring students into interactive and personalized learning environments, provide them with hands-on experience and skills that they can learn and develop. These methods are essential in ensuring that engineers are well-prepared for the innovations and demands of the real world.

In conclusion, it can be said that the combination of these methods is effective in developing students' professional skills. effective to be for important will be. Every one student personal features, developing in technologies interests and professional goals according to special requires programming.

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