

IMPLEMENTATION OF DIGITAL TECHNOLOGIES IN THE EDUCATIONAL PROCESS OF HIGHER EDUCATION INSTITUTIONS

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Annotation: Today, the relevance of digitalization of various spheres of human life has increased significantly: the world has changed a lot, so new solutions are needed. The article pays close attention to the problem of digitalization of education in higher education. We will talk about its necessity and the benefits it brings. You will also learn how digitalization changes the educational landscape and becomes a key element in organizing independent work of students of higher education institutions. Components of the digital educational environment are electronic educational resources (including electronic resources created to support the educational process; electronic training courses that are completely ready for the implementation of didactic tasks). As an example, a description is given of an electronic training course developed by the authors on the subject "Theory of Automatic Control" (in Uzbek), which is studied by students of the direction "Control and automation of technological processes of production".

Keywords: digitalization, education, electronic educational resources.

Introduction. First of all, let us ask ourselves the following questions: what is meant by the term "digitalization of education" and why is digitalization of education needed?

Digitalization of education is the introduction of digital technologies into the educational and management processes of educational institutions. It covers the use of online courses, electronic libraries, learning management systems, virtual reality and other modern tools. This phenomenon affects not only the educational processes themselves, but also organizational aspects, such as electronic progress records, opportunities for remote communication between students and teachers, access to information systems.

After the coronavirus pandemic, digitalization became especially relevant when schools and higher education institutions (universities) were forced to switch to distance learning. This event showed how important the flexibility and adaptability of the educational system is. The main idea of digitalization is the effective and adaptive use of modern technologies to create a personalized and effective educational process.

Digitalization of education is necessary for several reasons[1]:

- *Increasing accessibility to education*

Digitalization allows students from remote regions to access quality educational materials and online courses.

- *Personalization of learning*

Systems that analyze student performance data can tailor curricula to individual needs.

- *Process optimization*

Automating routine tasks such as registration and progress tracking frees up time for teaching activities.

- *Increasing student engagement*

New technologies allow for the introduction of simulations, gamification and collaborative projects, making learning more engaging.

- *Improving the quality of domestic education*

Digital educational tools make it possible to acquire practical skills needed for the modern economy faster and more effectively, which helps students be competitive in the labor market.

- *Ensuring continuity of education*

Digital platforms provide students with the opportunity to study from home, even if they are on sick leave. Teachers, while on a business trip, can continue to teach classes and interact with their students. Such solutions make the educational process more flexible and accessible, allowing each participant to maintain the learning rhythm regardless of the circumstances.

- *Acceleration of professional training*

Digital technologies enable students to acquire practical skills faster through simulations, virtual labs, and other interactive learning methods.

Materials and methods . Digitalization of education is the use of applications, programs and other digital learning tools in schools, universities, and distance learning courses . For example, when students complete assignments not in a notebook, but using an online platform. Digital learning programs cover various learning styles using multimedia and interactive content (content includes text, graphics, audio, videos, animation, and images) .

In addition, it equips students with essential digital literacy skills, preparing them for a technology-driven future.

Digital technologies help teachers to individualize learning and make it more inclusive. An inclusive approach involves understanding the different educational needs of students and providing services in accordance with these needs through full participation in the educational process and the elimination of segregation and discrimination in education[3].

With the help of digital technologies, teachers can create personalized learning programs taking into account the knowledge level and needs of students and, as a result, maximize the potential of each of them.

Its main objective is to facilitate the expansion of opportunities across all sectors by: reducing the need for physical movement, automating processes, transforming business processes and models.

The components of the digital educational environment (DEE) are electronic educational resources (including electronic resources created to support the educational process; electronic training courses that are fully prepared for the implementation of didactic tasks).

The DOS is an open set of information systems designed to support various tasks of the educational process. The word "open" means the ability and right of any user to use different information systems within the DOS, replace them or add new ones.

Our state pays great attention to the development of science and higher education. This sphere has a positive impact on the socio-economic development of the subjects, which requires an increase in the number of highly qualified personnel, as well as the creation of high-quality and

modern infrastructure. It is to achieve the goals of socio-economic development and reveal the potential of the regions in terms of training personnel for the regional economy and industry that the measures of national projects and programs are being implemented. In addition, today there is a trend towards increasing the availability of higher education in the regions, which is facilitated by the digitalization of the industry. And this is not just a trend, but a priority area of work that requires our attention and efforts. With its help, new horizons are opening up for interaction between scientists, teachers and students, and the exchange of knowledge and innovations is accelerating.

Digitalization of education provides universities with opportunities to improve the quality of education, improve the availability of educational resources, and adapt the educational process to the individual needs of students. It is important to remember that digitalization is not a replacement for traditional methods, but an effective complement to them, contributing to the creation of a more dynamic and accessible educational environment.

Digital transformation of universities is a change in various types of university activities due to deep and large-scale implementation of digital technologies, creation of convenient services for all interested participants in the process of obtaining education. It is necessary to increase the competitiveness and uniqueness of educational institutions. This is the key to successful development in the modern world. By investing in digital technologies, universities not only strengthen their competitiveness, but also open up new horizons for future generations!

Results. As noted above, the components of the digital educational environment (DEE) are electronic educational resources (including electronic resources created to support the educational process; electronic training courses, fully prepared for the implementation of didactic tasks).

The authors of this article have developed an electronic training course on the subject "Theory of Automatic Control" (in Uzbek), which is studied by students of the direction "Control and automation of technological processes of production". The developed electronic training course contains theoretical and practical materials that fully comply with the program of study of this discipline over two semesters.

The program is developed on Embarcadero Delphi, which is an imperative, structured, object-oriented high-level programming language with strict static typing of variables. The program menu consists of two parts, the first of which contains materials for lectures, practical and laboratory work, and the second - methodological instructions for completing coursework and independent work. This also includes test questions, tests for checking knowledge, as well as videos, slides, a glossary and, finally, a list of recommended literature on the theory of automatic control.

The tree of objects is created using the TreeView component in each part of the program menu. When you click on each object in the program's working window, information in PDF format is displayed. Videos and a list of references are located on a cloud server, the corresponding information is displayed when you click on the desired element.

The program is optimized, the program code is compact and has the ability to work quickly. The size of the program is 83 Mb.

Conclusions. The electronic training course is provided with detailed instructions for the user in the local network and the Internet. It is intended to provide an independent, continuous and complete didactic cycle of the process of studying the specified subject. The course proposed

by the authors was developed on the basis of multimedia technologies that arose at the junction of many branches of knowledge. In the multimedia textbook, all the main stages of training are automated - from the presentation of educational material to knowledge control. At the same time, all the studied material is translated into a bright, exciting form with extensive use of graphics, animation, including interactive, sound effects and voice accompaniment, the inclusion of video fragments, morphing, etc.

The Agency for Intellectual Property under the Ministry of Justice of the Republic of Uzbekistan issued certificate No. DGU 22889 on the official registration of an electronic educational complex (software product for a computer) on the subject of "Theory of Automatic Control"

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