

**THE ROLE OF INFORMATION TECHNOLOGIES IN HIGHER  
EDUCATION**

Annotation: Creating an information society is one of the most important priorities of our country's development. At present, the legal basis for informatization processes has been formed, and the national information and communication infrastructure is being developed to provide new telecommunications and information services.

Key words: information, internet, higher education, ICT.

The current stage of using ICT is characterized by the wide distribution and availability of information resources and Internet services at almost all levels of education, the use of students and teachers' own personal computers, access devices, and active involvement in the educational process of multimedia and interactive learning tools, the development of new electronic tools and technologies for organizing pedagogical activities. The massive penetration of ICTs in all spheres of society creates the necessary incentives for their use in the education system.

On the other hand, along with a high degree of infrastructure development and readiness to use information technologies, growth rates and large amounts of knowledge, increasing requirements for the level of humanitarian and professional competencies necessary for successful self-realization on the part of students and society, exacerbate the problems of developing high-quality content of "electronic" education, effective use and staffing of modern technologies and information security. In conditions of high interest and mass demand on the part of society for "lifelong learning" and requirements for the availability of high-quality and

modern education, informatization is one of the key factors in the development of the system.

Our modern society is strongly influenced by new computer technologies that have permeated all areas of our daily life. We exchange information, distribute it and receive it, forming a global information space. But this knowledge is narrow, because learning occurs at the expense of interests in a particular area and it turns out that children are mostly familiar with computer games, social networks. Networks and other entertainment resources, but have no interest in learning, and sometimes a proper education. This is due to the fact that education has not had time to adapt to the rigid trends of society and the world as a whole, hence the growing understanding that the traditional scheme of obtaining education in the first half of life is morally outdated and needs to be replaced by continuous education and lifelong learning [1].

New forms of education are characterized by interactivity and collaboration in the learning process. New learning theories, student-centered education, and learning without time and space boundaries should be developed. To improve the quality of education, it is also planned to use intensively new educational technologies and approaches to standardization, which are discussed in detail [2].

At the moment, in many countries, including Uzbekistan, the trend of introducing information technologies in education is only gaining momentum and often people who do not have a clear understanding of modern technologies and often adhere to the old methods of teaching are engaged in implementation. Also, the lack of implementation is due to the fact that a few years ago primary school teachers were unfamiliar with computer technologies at the right level, so they had no idea how to use certain technologies in teaching specific subjects. In most cases, computer lessons were taught by computer science teachers who had little idea how to use information technology in teaching. And also, although there are computers in schools, not all of its features are fully implemented due to the reasons mentioned earlier. But education goes through the stages of innovation and

gradually the staff is replenished with fresh minds that have proper education and knowledge in training using information technology.

Computerization of education related to a large-scale innovation plan was only the initial step towards the introduction of computer technology in education because it is not the technology that is important, but its interaction with learning and its role in the context of the education system as a whole. Information technologies bring opportunity and need of change of the model of the educational process: the transition from reproductive training – "overflow" of knowledge from one head to another, from teacher to students – to creative model (when in the classroom with the new technological and technical support of simulated life situation or process, students under the guidance of a teacher needs to apply their knowledge, to be creative to analyze the simulated situation and work out solutions to the assigned tasks). The development of traditional and new technologies should follow the principle of complementarity and mutual correlation, which, in turn, allows us to speak about a fundamentally new dimension of the educational environment – a global dimension that exists in real time and associates the entire set of educational technologies.

Today, one of the key characteristics of the educational environment in schools and institutes is the ability of students and teachers to access educational materials stored in the database of the educational institution. In addition to the availability of educational material, the availability of communication with the teacher has become real, you can get advice online or off-line [3], as well as receive individual instructions in the development of a particular subject.

New technologies and learning systems that store the knowledge of an entire library have been used, so, for example, e-books or tablets will gradually replace conventional books. School education gradually becomes hardware-based learning, when each student can individually observe the progress of solving a problem on a tablet and, if necessary, view it as many times as it takes to learn the program, rather than constantly keep up with the teacher who works with the audience as a whole. This increases the assimilation of the material at times, and teachers easily

monitor the progress of students and then change the material individually for each.

Naturally, this practice is not yet widespread, because we need to radically change the education system as a whole. But already in many countries, "test" educational institutions have begun to fall, which show a significant increase in the assimilation of information and contribute to the creative and social development of the student. We are now on the threshold of a new era of learning. In the near future, when the introduction of information technologies will allow students to freely acquire knowledge, whenever and wherever they want will change the concept of education as a whole. Any person will be able to get the knowledge they need, there will be no problems with places in an educational institution because schools and universities in the usual sense will gradually disappear, for example, several hundred thousand students can easily study in an educational institution.

Today, almost all educational institutions at all levels are provided with information technology tools to some extent (computers, multimedia and various types of projection equipment, copying and multiplying equipment, system and application software). First of all, higher education institutions have a high level of development of ICT infrastructure.

The national system of electronic educational resources and the network infrastructure of the education system form a single industry information environment of the education system of the Republic of Belarus. The strategic goal of its development is to provide students and specialists of various educational institutions, regardless of their location, with equal opportunities to obtain knowledge at the level of modern requirements of state, European and international standards. The development of virtual reality will allow you to record the surrounding space, while there will be no need to be "physically" present at lectures and a strictly fixed schedule of lectures. The ability to access any knowledge instantly from anywhere will lead to a ubiquitous form of home learning. The main function of an educational institution is to change from "give

education" to "check the availability of acquired knowledge and issue a diploma"[4].

The modern education system is increasingly using information technologies and computer telecommunications. The system of distance education, which focuses on independent study of subjects, is developing especially dynamically. This is facilitated by a number of factors, and first of all-equipping educational institutions with powerful computer technology and the development of Internet communities.

The use of color computer animation, high-quality graphics, video series, schematic, formula, reference presentations allows you to present the course in the form of a sequential or branching chain of dynamic images with the possibility of switching (with a return) to information blocks that implement certain structures or processes. Multimedia systems allow you to make the presentation of didactic material as convenient and visual as possible, which encourages interest in learning and allows you to eliminate gaps in knowledge.

In addition, such systems can and should be equipped with effective tools for evaluating and monitoring the process of learning and acquiring skills.

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