

DIGITAL TECHNOLOGIES AND EDUCATIONAL OPPORTUNITIES

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Abstract:

The article reveals the importance of digital technologies and their capabilities in education. The improvement of modern education is inextricably linked with the development of digital technologies, the introduction of which contributes to the modernization and development of education, improving the quality of training of future specialists, as well as to the convergence of education with science.

Keywords: digital technologies, science, education, modernization, technologies in education, digital culture, upbringing.

Introduction

The modern period of development is characterized by the rapid development of the processes of global expansion of information and communication technologies, where knowledge is becoming the main strategic resource.

At present, it is impossible to imagine education without information technologies, new concepts such as "new pedagogical technologies", electronic training courses that solve the problems of individualization of learning, etc.

Digital technologies contribute to the improvement of education and create great opportunities. On the basis of the digital transformation of education, the personalization of the educational process takes place. [1.79].

"The main role that digital technologies play in the context of the use of distance technologies is the creation, presentation of educational material, ensuring educational and administrative dialogues, communication and organization of joint activities...". [2.39].

In the conditions of New Uzbekistan, the reform of the education system, first of all, is associated with the introduction of advanced information technologies in the system of education and upbringing.

Thus, one of the priority tasks in the system of higher pedagogical education of New Uzbekistan is the formation of creative thinking among students. For example, creativity is one of the top five professional skills proposed by the World Economic Forum. Large companies need young personnel who are able to think outside the box, use their

imagination, and look for non-standard approaches. Whatever modern computers are, people have an advantage in their creative thinking – they are more adaptive in crisis situations and are able to offer new relevant products and solutions. [8].

In modern times, education uses such forms of learning as e-learning, open online courses, adaptive education, integral approach, changing the role of the teacher, gamification, distance education, where information can be presented in various forms and formats and this can contribute to increasing the effectiveness of the learning process, as well as the use of advanced learning technologies that are used in the educational process, such as STEAM, Fishbone, Singapore methodology, etc.

One of the obvious facts not only of higher education in Uzbekistan, but of school education is the gap between theory and practice. Facts from the textbook in many cases remain incomprehensible – the student is not aware of how the text of a particular paragraph of the textbook comes into contact with real life and experience. Accordingly, the material is absorbed several times worse, and memory does not retain massive, but useless layers of information. Scientists of the US National Science Foundation have proposed the STEM approach (STEAM). This approach is based on a combination of theoretical and applied skills. A student covers several areas at the same time knowledge, gets the opportunity to use the available information more fully and check the facts through his own experience. [9].

The way out of this situation is to teach students, future teachers of secondary schools, STEM methodology, which is primarily based on the teamwork of students: the distribution of roles, goals, responsibilities, reports, maintaining a balance of forces and the effective use of these forces. Further: certain theoretical judgments are demonstrated in parallel by means of experiments and experiments (laboratory rooms are required). The next step is to raise topical problems in the classroom, the solution of which can be useful here and now: improving the environment, etc. And this, in turn, requires the teacher to use the latest research in the field of science. And, finally, the proposed tasks should contain the possibilities of alternative solutions.

The STEM approach allows you to remove outdated notions of a "technical" and "humanitarian" mindset: team members working on a project simultaneously develop multidirectional skills. Also, the new teaching methodology takes into account the gender aspect, providing absolutely all students with equal opportunities for development and cooperation.

"Digital technologies are already the environment of human existence, which opens up opportunities for effective solutions to life situations, search for the necessary information and its processing, the use of interactive services, allows you to strengthen control in various areas, expand the possibilities of interaction with devices and equipment, monitor the operation of equipment in real time and many other functions." [3.36.].

The novelty and originality of information and communication technologies from the point of view of the formation of a harmoniously developed generation lies in the fact that they penetrate almost all spheres of human activity, they can be used in an almost unlimited

range of places and purposes. The main tools are: Big Data, machine learning, neural networks, Artificial Intelligence (AI), virtual reality technologies, digital applications and platforms, robotics, etc.

Also, information and communication technologies make it possible to give education with unlimited efficiency in the main areas: this is overcoming obstacles on the way to knowledge, if education leads to the development of cognitive skills, then information is needed to ensure the meaningful aspect of the process of accumulating knowledge; overcoming obstacles to participation in public life; overcoming obstacles to economic empowerment. Information and communication technologies and related industries are the most dynamic sectors and education systems.

New information technologies dramatically expand access to information and communication, e-mail, electronic libraries - sites have unlimited opportunities for the education system, overcome any boundaries, creating opportunities to receive educational and scientific information from anywhere in the world. The globalization of educational problems - from holding seminars to revealing the essence of terrorism and religious extremism - increases the importance of the information and educational potential of electronic networks.

New information technologies make it possible to link science and education with closer and more effective communication channels such as the transfer of accumulated knowledge, its replenishment and reassessment.

Today, science is the main, dominant means of developing the education system. This was not always the case, advanced information technology has changed the importance of science in the education system. Society creates new scientific structures related not only to the development of science itself, but also to the system of education and training. In the process of improving education, modern technologies are becoming increasingly important, the introduction of which contributes to the modernization and development of education, improving the quality of training of future specialists and bringing education closer to science.

The problem of educating a harmoniously developed generation requires the education system to form in the younger generation the desire to master the achievements of not only national culture, but also the achievements of universal world culture. Global digitalization forms a new type of culture of modern society - digital culture, which requires modernization of the system of vocational education in the direction of readiness for adequate use of the opportunities of technological innovations and development of relevant professionally significant qualities with their help. [4.15].

At the same time, in modern times, society often discusses the problems of digitalization, such as: dehumanization of a person, the possibility of controlling the activities of a scientist and limiting his access to certain information, etc. the development of social egoism, etc. [5.6-12]. In such conditions, along with the issues of improving the quality of education, the issues of improving the level of spiritual and moral education are of great importance.

some issues that are fundamental – for example, the question of individual freedom in general, and on the Internet in particular. On the one hand, the expansion of the Internet space has given a particular person, in fact, unlimited opportunities to use this or that information, at the same time it gives rise to new problems, namely, the problems of security of being in the network world, due to the use of his personal data in the network and electronic devices, vulnerability to manipulation of consciousness, cybercrime, surveillance by special services, etc. [7.Kin. 2016]. that the whole life of people turned out to be available. A whole new direction of "fintech" has emerged. At the same time, paradoxical as it may sound, the digital revolution is making us more and more dependent on technology, depriving us of creativity, individuality, independence.

The implementation of the national training programme should certainly be based on new information technologies. [6.275]. It is impossible to build a civil society without encouraging an education system that would be a process, and not a closed static system of views. The new Uzbekistan is developing very quickly and dynamically, and in order to support and guarantee this, the education system must be dynamic and flexible, where philosophy acquires a special role and importance in the era of digitalization.

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