

DIDACTIC IMPORTANCE OF USING DIGITAL EDUCATIONAL TECHNOLOGIES IN THE EDUCATIONAL PROCESS**Khamroyeva Madina Dadajonovna,**

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Annotation: One of the main advantages of digitization is the ability to increase student engagement. Using digital tools such as online learning platforms, social networks, and mobile applications, universities can create interactive and engaging learning experiences that can be used in a variety of settings and increase student motivation. Digitization also allows universities to use new teaching methods such as games and virtual reality. These methods can be used to create interactive learning experiences that make it easier for students to understand complex concepts and theories.

Keywords: cloud computing, digital educational technologies, zoology, digital school, online, virtual learning.

Introduction. At the beginning of the 21st century, modern education was faced with a global task - digitization and the introduction of digital technologies. These tasks are aimed at strengthening the requirements for the training of pedagogical personnel, in higher education institutions - to arm students not only with theoretical knowledge, but also to have a wide arsenal of personally oriented skills, to master interactive, motivational strategies and technologies of professional work with students.

Reflecting on the modern education system, Ken Robinson, one of the world's most famous experts in the field of innovation in state and public organizations, says: "All education systems, without exception, are currently in the process of reform. But this is not enough. Reform is no longer useful, because it is aimed at improving a model that does not work. We need not evolution, but revolution (revolution) in education" [2; p-29].

In our republic, as in all spheres, large-scale work is being carried out on digitizing the education system, introducing digital technologies, developing data storage and processing centers based on "cloud" computing, introducing and developing distance, online and virtual learning technologies in the field of information technologies, developing platforms for online courses [1]. As a result, pedagogical reality leads us to the idea that education needs teachers of a new format: mobile and creative, information and communicatively literate, able to respond to rapidly changing conditions of life. This is especially true with the emergence of new professions in the field of education: tutor, moderator of educational platforms, startup mentor, game master.

All new professions associated with the challenges of digitization prove the need to form these skills in future teachers.

The “Digital School” system and project [<https://raqamli-maktab.uz/public/pages/main>], which is being implemented in our republic with the aim of digitizing the activities of educational institutions and the activities of auxiliary sectors of the economy, directly requires the development of the competence of future teachers in the use of digital technologies, organizing independent educational and learning activities of students using cloud technologies.

One of the main advantages of digitization is the possibility of increasing student activity. Using digital tools such as online learning platforms, social networks, and mobile applications, universities can increase student motivation and create interactive and interesting learning experiences that can be used in various conditions. Digitization also allows universities to use new teaching methods such as games and virtual reality. These methods can be used to create interactive learning experiences that make it easier for students to understand complex concepts and theories.

As a result of the rapid development of science and society, as well as the active application of information and communication technologies in various fields, people's lifestyles are changing dramatically. It is no secret that today information is rapidly becoming the driving force of society and the state. Modern information and communication technologies, which allow the collection, storage, processing and transmission of information, are considered one of the most important factors of competitiveness in the labor market, as well as a means of ensuring the optimal management of all spheres of human activity.

The development of blogs by video bloggers, the provision of information and news through the websites of various publications, the proliferation of blogs on various topics by bloggers, as well as the popularization of social networks (Facebook, Instagram, YouTube, Telegram, Twitter) have become a modern way of communication for many people today. are contributing to the future prospects.

Today, the rapid development of computer technology and Internet - network technologies in various fields, in particular, requires educational participants - pupils, students, specialists - to use computing tools in the form of discrete devices in their practical and professional activities, in the form of integrated network (cluster) computing tools directly connected to the Internet, that is, cloud computing tools.

In recent years, the rapid development and improvement of information and communication technologies have significantly expanded their capabilities, as a result of which they have become an integral part of everyday life for most members of modern society. It is also clear that the motivation to use personal computers, laptops, netbooks, tablets, smartphones and many other mobile devices, various software tools and electronic resources (cloud education technologies) as the main didactic tool is increasing throughout the life of each person, including in the process of organizing independent education of educational participants (teachers, pupils, students, researchers). Trends in the development of modern information and communication technologies, including the significant expansion of the global network for people, the widespread use of cloud and mobile technologies among users, are explained by the following factors: the increased need for Internet use, the urgency of

ensuring information security, the rapid development of artificial intelligence technologies due to their high demand, and the widespread use of virtual reality tools.

Thanks to cloud technology, many services such as storage, software, computing services, state recovery and data exchange between users are carried out via the virtual Internet. It is widely used not only between individuals, but also between institutions. [3;].

Since 2008, the word "Cloud technology" has become widespread worldwide. At first glance, "Cloud technology" may seem incomprehensible: this model allows for quick, convenient, and efficient use of a system (servers, applications, storage systems and services) [4 p. 1046]. The essence of cloud technology is to provide users with remote access services, computing resources and applications (including operating systems and infrastructure) via the Internet [5;1058-b.]

The development of cloud technologies in our country has led to the rapid emergence and use of the general professional discipline "Biology Teaching Methods", which is included in the curriculum of higher pedagogical educational institutions of our country, in the study of which it is envisaged to teach students studying biology. The upcoming software, hardware, and Internet technology innovations require a high level of preparation on the part of all parties for their strong adoption[9]. The effective use of the didactic capabilities of information and communication technologies in the educational process and in independent learning activities allows for the rapid and high-quality presentation of educational material to students, as well as the reorganization of individual and group work in collaboration with them. This helps to increase students' creativity and increase their motivation for the subject being studied.

According to B.E. Starichenko, in order to live comfortably in modern society, a person must have the following qualities: the ability to think critically and independently, a broad view of the professional field, knowledge of technologies for searching, collecting, storing, processing and using information, readiness to take responsibility for the results of their activities, as well as the ability to learn independently and have internal motivation. [6; 7-b].

The digitalization of vocational education includes the following rules for training future specialists on the basis of continuous information training:

- the formation of an information culture of future teachers corresponding to the modern level and prospects for the development of new digital technologies;
- the informatization of higher vocational education should be aimed at training specialists who can use digital technologies and tools in their professional activities [8; 64-b.].

The use of cloud technologies creates opportunities in the professional training of specialists, as it has special convenience for students.

The purpose of these technologies is to interest future teachers in presenting educational material in an unusual way, to organize collaborative work on documents, work on them, use materials and provide distance learning, as well as to test knowledge remotely. To consolidate and systematize student knowledge, for example, a Google questionnaire can be used. Using the Google Docs service allows

the teacher to create various tests and even determine the time when the student completed the task. As the capabilities of the information and educational space increase, cloud technologies are expanding, as they allow organizing practical exercises, seminar assignments and testing remotely, or conducting online Olympiads.

Conclusion: Based on the above, it is necessary to describe the importance of the use of digital technologies in teaching zoology. If in the traditional lesson process the teacher is the subject of the lesson, then within the framework of digital technologies the student's independent work skills and responsibility increase dramatically.

Therefore, on the one hand, the possibilities of digital technologies increase the effectiveness of teaching zoology, on the other hand, this should be considered as an important pedagogical problem that requires methodological training from teachers and readiness for independent work from students.

List of used literature

1. Resolution of the President of the Republic of Uzbekistan dated August 21, 2020 No. PQ-4805 "On measures to improve the quality of continuous education and the effectiveness of science in chemistry and biology".
2. <https://logigroup.uz/bulutli-teknologiya.html>
3. Mirzayev A. O. K. (2021). Digitization in the education system of our country and the existing opportunities for teaching and learning in the digital world. Academic research in educational sciences, 2 (12), 1046-1051.
4. Mamarajabov H.E. Cloud technologies // PPSUTLSC-2024. Tashkent May 6-8. 2024. -B. 1058-1061.
5. Starichenko, B.E. Professional standard i IKT-kompetentsi pedagoga // Pedagogicheskoe obrazovanie v Rossii. – 2015. – No. 7. – S. 6-15.
6. Tuzhikova E.S. Sovremennye podkhody k organizatsii obrazovatel'nogo protsesse v vyshey shkole // Molodoy uchenyy. – 2016. – No. 3. – S. 611-614.
7. Seydametova Z.S., Seytvelieva S.N. Cloud service and education // Information technology and education. - 2011. - #9. - S. 105-111.
8. D.Y, Jurayeva. "Improving students' independent learning based on cloud technologies (in the field of biology teaching methodology) dissertation work. 2025
9. M.D. Khamroyeva.H. Umarov "The use of digital educational technologies in education today" Preschool and School Education Journal. June 6, 2025. p. 647.