

DIGITAL EDUCATIONAL ENVIRONMENT AND THE ADVANTAGES OF ITS USE IN THE EDUCATIONAL PROCESS

Khozhanizyazova, S. P.

Nukus branch of Tashkent University of Information Technologies named after Al-Khwarizmi

ABSTRACT

The article deals with the tasks of organizing a digital educational environment in the educational process in terms of its advantages over traditional teaching methods.

Keywords: digital, service, cloud technology, environment, tools.

Introduction

After studying the main functional and pedagogical features of cloud services, the question arises of developing a digital learning environment (DLE) for teachers and choosing the most suitable one for effective work in it.

So far, there is no single definition of a digital learning environment.

In general, space is understood as “a fundamental concept in human thinking, reflecting the multiplicity and heterogeneity of the existence of the world.” [7]

The degree of study of the topic.

E.O. Ivanova considers the information and educational space as “an indivisible unity that provides subjects with information, means of its storage and production, methods and techniques of work, as well as information for educational purposes.”[5]

In this space of educational activity, the main thing is the relationship between two purposeful activities - teaching and learning, defined as follows “This relationship organizes the entire system of didactic relations and their concrete manifestation in the learning process.”[6]

In these didactic relations, according to Ya.M. Riihelainen, digital teaching aids are increasingly interfering. “The classical didactic relationship teacher - material - student is expanding at the expense of the educational environment of the school, society and the world” [1].

The educational environment is increasingly acquiring signs of digitalization, thereby integrating value, motivational, emotional and reflexive mechanisms for the formation of the subject of education. Therefore, many authors consider the digital educational environment as a result of the transformation of education in the process of informatization [2].

Speaking about the content of the environment itself, O.P. Zhigalova presents it as a set of conditions focused on the development of the student's ability to function in conditions of multilevel interaction [3].

It should be noted that many authors seek to highlight the main goals of creating and using DLE in educational institutions. So, for example, A.E. Ibraimov believes that distance learning works best as one of the aspects that should be integrated into parallel learning [4]. Such goals

include, for example, the creation of individual educational trajectories for students, the ability to access the latest educational resources and platforms, and the expansion of the boundaries of educational organizations to a global scale.

Main part

The analysis shows that the Google Drive cloud service is most suitable for teachers to create a DLE. The service offers a range of free tools (eg Google Docs, Google Classes, Google Forms) and has low barriers to entry, making it accessible to educators. Another advantage of this service is that Google Drive allows you to modify the platform in accordance with the educational program of a particular educational institution. The difference from traditional platforms is that Google Drive functions can be used to solve practical problems.

For example, Google Classroom allows educators to create courses that practice their own methodologies. Here they can publish learning materials, organize online and offline collaboration, and evaluate their work automatically or manually.

It is important to understand the differences between Google tools and use them appropriately in the classroom; Google tools are varied and versatile. For example, in Google Docs, you can work individually or do collaborative projects that only the owner of the document has access to. Information tasks and Google tools that help you perform these tasks can be seen in the following table as an example.

Information Tasks and Google Tools

Tasks	Tools
Storage of documents, audio, video and photographic materials, data transfer	Google Drive, Google Photos, Embedded Google Mail, Embedded YouTube Video Hosting, Embedded ZIP Extractor
Create text, voice and graphic reminders	Google Keep, Google Calendar
Organization of individual work	Google Docs, Google Sheets, Google Slides.
Organization of project work	Google Slides, Google Docs, Google Sheets, Google Classroom
Provision of information, creation of information platforms	Google Classroom, Google Site
Data collection	Google Forms
Social media communications and blogging	Google Blogger, Google Chat, Google Meet, Google Duo, Google Jamboard
Information sources	Google Search, Google News, Google Podcasts

Thus, Google Cloud has on its platform a number of universal tools for solving a variety of educational tasks. These tools allow you to exchange email, access the world's largest video hosting service, create and edit documents, share information with colleagues and students, work remotely with each other on the same projects, and create your own information platform and educational environment.

Nowadays, almost all subjects are studied using modern computer technology. Computer technologies make it possible not only to perform complex calculations, but also to use global networks. The development of computer technology has contributed to the creation of

numerous application software products that are used or can be used in the educational process. It is not uncommon for teachers to have special software for the courses they teach but are unable to install it due to the type of computer equipment installed in the classroom.

The use of cloud computing to a greater or lesser extent solves this problem. Most classrooms in educational institutions use local area networks, which provide access to the corporate network of the educational institution (with access to a private cloud, if one has been created), as well as to the Internet (with access to public cloud and hybrid cloud resources). The benefits of cloud computing include:

The benefits of cloud computing include

- interaction and collaboration with colleagues regardless of their location - creation of web laboratories in specific subject areas (for example, mechanisms for adding new resources, interactive access to modeling tools and information resources, user support, etc.)
- Implementation of various forms of monitoring
- Migration of used learning management systems (LMS) to the cloud;
- New opportunities for researchers to organize access, develop and disseminate applied models.

Providing students with a virtual machine in the cloud abstracts the resource capabilities of the computer from which they connect to the virtual machine using Remote Desktop Protocol (RDP). Even if the computer is not up to date, it has enough power to display remote desktop.

Here are some tasks specific to the educational process that can be solved using server virtualization technology

1. Providing students with access to computer resources outside of school hours
2. student access to one or more virtual computers with administrator rights
3. the ability for students to stop and save the state of their virtual machines, making the learning process more flexible
4. offer students studying computer science, extensive programs of modern educational institutions, including the study of various operating systems and application software.

CONCLUSION

The opportunities presented by DLE, when properly used, can significantly improve the efficiency of the educational process by reducing mechanical operations, optimizing the interaction between the teacher and the student, as well as using cloud service applications.

At the same time, when considering the possibility of using cloud solutions in the educational process, one should keep in mind the difficulties of their implementation, as well as the existing shortcomings. Teachers of the discipline, in which students study, may not have sufficient qualifications to manage cloud resources as part of the task of organizing the educational process. They have to rely on a network connection and back up important information to local computers or portable media. You can trust the cloud only with data that can be disposed of retroactively.

REFERENCES

1. J.M. Riihelainen, D. Crosier. Focus On: Digital learning environments - the best way forward? P.197]. URL: <https://eacea.ec.europa.eu/national-policies/eurydice/content/focus-digital-learning-environments> (accessed 14.02.2020).

2. Budarina A.O., Loksha O.M. The use of an electronic portfolio in the system of teacher education as an element of organizing a digital educational environment. Bulletin of the Baltic Federal University. I. Kant. Series: Philology, Pedagogy, Psychology. 2018. No. 4. P. 87
3. Zhigalova O.P. Formation of the educational environment in the conditions of the digital transformation of society // Scientific notes of the Zabaikal State University.. 2019. V. 14. No. 2. S. 69-74.
4. Ibraimov A.E. Improving the scientific-methodical foundations of distance professional development of physics teachers of the general education school, PhD dissertation... abstract - 2017, Tashkent
5. Ivanova E.O., Osmolovskaya I.M. Didactics in the information society // Pedagogy. - 2009. - No. 10. - P. 8-15.
6. Dictionary-reference book on pedagogy / ed. V.A. Mizherikov; ed. P.I. piddly. - M.: Sfera, 2004.- S. 82.
7. Philosophical encyclopedia. Dictionaries and encyclopedias on academician. URL: https://dic.academic.ru/dic.nsf/enc_philosophy/994/space (accessed 02/11/2020).