THE ROLE AND IMPORTANCE OF CLOUD TECHNOLOGY IN ENSURING THE QUALITY OF EDUCATION

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ABSTRACT

The article describes the aspects of the use of cloud technologies, their specificity and the development of the features of storage and processing of educational information as an example of higher education institutions. The positive aspects of cloud technology are highlighted in ensuring the quality of Education.

Keywords: Informatization of education, information and learning environment, cloud technology, platforms, services, e-learning, e-learning resources, permitting, scalability, reliability, resilience.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

President Of The Republic Of Uzbekistan Sh. M. Mirziyoyev's approved decree on February 7, 2017, the tasks of further improvement of the education system in the priority directions of the strategy of action on five priority directions of the development of the Republic of Uzbekistan and formation of the system of training of qualified personnel meeting the requirements of the world's samples for given various sectors [1].

Currently, attention is paid to the alternative organization of the educational process in higher educational institutions of the Republic and the design of training using methods and means of modern innovative technologies. The priority role was played by the development of information and educational technologies, as well as in the multifaceted areas of educational development. The relevance of the introduction of new information technologies in education in an informed society is such that they create qualitatively new opportunities not only in the implementation of the tasks of tools (manuals), but also in training, in the formation of skills of independent educational activities, in the creation of new forms of training in education.

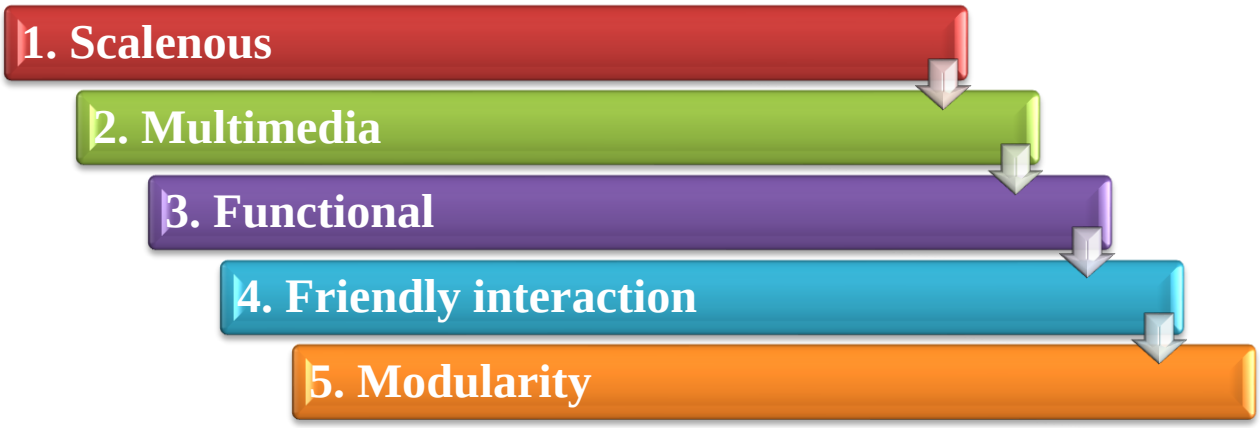
Nowadays, the following factors play an important role in the process of informatization of education:

- the rapid development of an informed society;
- increasing of the amount of information required for successful professional activity;
- relevance of education in solving the problem of human adaptation to life in the InfoSphere;
- creation of opportunities of wide and effective use of information technologies and their wide distribution in various spheres of activity;
- functional availability of information and communication technologies-rapid growth of yacht and technical characteristics [4].

We should note that in the process of informatization of education, all higher educational institutions have their own Web-site on the Internet. This has created opportunities to use

electronic-educational resources as a team, disseminate informations relevant to students, establish mutual relations between subjects, as well as to constantly introduce professors and students to the innovations of the educational institution. Along with this, an opportunity was created to acquire knowledge from anywhere and at any time through the use of distance learning technologies in education.

One of the main conditions for the organization of distance learning is the possibility of simultaneous management of the educational process and control over the quality of the acquired knowledge. The choice of software TTA for distance learning should be made in accordance with the desire and purpose of the superintendent, that is, the educational institution. Such requirements are determined mainly by the qualification requirements of the educational



direction. When choosing software for distance learning it is desirable to take the following criteria as a basis:

1. Scalenous: the platform should not only increase the number of students, but also be able to extend its field of area by adding new subjects.
2. Multimedia: the technical potential of the platform should be able to use text and graphics files, video and audio, animation as well as 3D graphics data as a means of teaching students.
3. Functionality: availability of necessary options, including chat, forums, course management, interactive communication between subjects
installation, student activity analysis, etc.
4. Friendly interaction: affecting the quality of the educational process
view as one of the main parameters.
5. Modularity: the training course can consist of several blocks (modules) of the teaching material, if necessary, this information can be included in the composition of other courses.

In order to improve the quality of education on the basis of ensuring a strong integration of science, education and production, training of competitive personnel, effective organization of scientific and innovative activities, the development of international cooperation, the higher education system is based on the needs of socio-economic sectors, in addition, as part of the implementation of the decree of the President of the Republic of Uzbekistan"on measures to introduce new management principles in the system of higher and secondary special education" PP-4391 dated July 11, 2019 [2] the concept of development of the higher education system of the Republic of Uzbekistan until 2030, which provides:, the use of "cloud technologies" is important in educational processes [3].

In the following years, the emphasis on the remote use of cloud technologies in the global educational practice has increased. Cloud technologies are considered to be the most end-to-end innovative platforms that are increasingly delving into the education system.

Cloud technology is a new service that involves the use of data processing and storage facilities remotely. With the help of "cloud" servers, access to information resources of any level is possible. It is enough to connect to the Internet and the web browser itself.

Cloud technology is an electronic repository that stores data on the Internet, creating the possibility of editing them, as well as the exchange of users through mutual files, documents, as well as access to communication. The American Corporation Google has shown great interest in the development of such technologies and was able to create a system Google Docs. In recent years, Google and Microsoft have achieved the creation of new platforms for teachers and students of educational institutions to use cloud servers. Such servers can perform work such as e-mail, instant messaging, creating calendar plans, creating and storing personal documents, creating websites that are available in the educational institution.

V. A. Korolev believes that cloud technologies are a new paradigm that allows to simultaneously process and store data with distributed and remote access [6]. Bunda's software and information technology infrastructure is delivered over the Internet as a service. This network service is called a cloud service, and using a mobile phone or computer, each user can access and use cloud resources.

Cloud technology provides users with the following capabilities:

- having access to the internet - to have the necessary information without
- leaving any place to anyone who has access to the Internet;
- huge storage-a large amount of information is stored in cloud storage and can be accessed at any time;
- computing resources are not limited to memory, microprocessor and other devices;
- reliability-additional reliability of data centers

copying data is done on an ongoing basis, which means incorrect behavior carried;

- security-cloud servers have an adequate security system;
- computing power - there are options to use all the computing power of cloud technologies with high efficiency.

It is worth noting that cloud technologies, which have great potential, are now widely used in the educational system. The use of cloud technologies in the education system allows us to solve two important issues. First, it will allow educational institutions and every student to use modern and up-to-date computer infrastructure, software, e-learning resources and services. Secondly, it allows individual educational institutions and the entire educational system to dramatically reduce the costs of the transition from accounting for the effective use of computing resources of cloud technologies to the creation of local information infrastructure and reduce the financial costs allocated to software and technology.

V. Tkachenko believes that cloud technologies differ in their characteristics and capabilities from other Internet resources by the following characteristics:

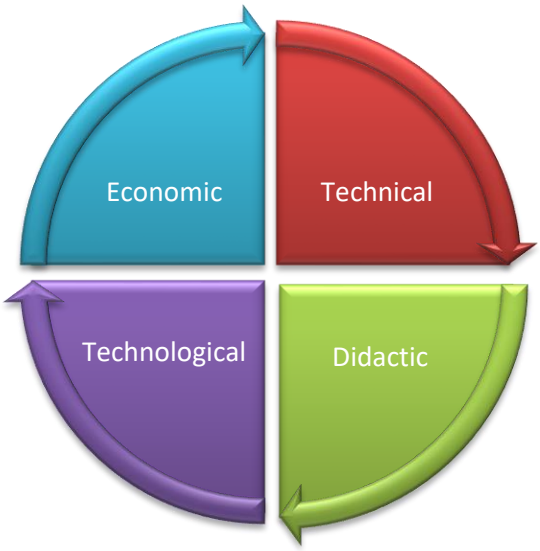
- ✓ the user sets the number of resources required for his work, does not require them to be in contact with the provider and service providers;
- ✓ the services provided will be carried out anywhere in the exchange rate system and will not depend on the platforms from which they operate on the part of the user;

✓ all shared physical resources are automatically combined into a single whole using software plotters without user perception;
✓ the service fee will be charged for the entire service, and for the work that you are using in real time [5].

Cloud technology configurable computing and information it provides constant and convenient access to its resources (data networks, servers, databases, applications), as well as the ability to work with selected resources and log out based on its demand.

The most important positive aspects of cloud technologies are manifested in the following aspects:

- ❖ Economic (this is considered one of the main advantages for many educational institutions);
- ❖ Technical (minimum requirements for the equipment are established, the mandatory requirement is only the availability of the Internet);



❖ Technological (many high-maintenance cloud services are very easy to use or require minimal support);
❖ Didactic (availability of a wide range of online tools and services and the possibility of their interaction with teachers and students) [4].

It is worth noting that in the introduction of cloud technologies, some problems may also arise. For example:

1. network connectivity;
2. need to store copies of documents on computers or media;
3. need to protect personal data.

This means that the use of cloud technologies in higher education increases the mobility of students, and they will be able to receive and use electronic learning materials from any modern communication devices (standard computers, laptops, netbooks, smartphones, tablets, mobile phones).

In addition, students will be able to conduct experiments or practical classes on the basis of modern software, while connecting to virtual machines. To do this, students do not need to write software to their personal computers or place the administrator of the educational institution on the local computer network.

In conclusion, it should be noted that in the educational system, as the main positive aspects of cloud technologies, we can highlight such opportunities as the use of information as a community, the organization of collaboration, the ability to work with electronic resources and software at any time, no need to purchase and install additional software, work with a user-friendly interface. In our opinion, in the future the importance of cloud technologies will increase, and they will occupy an important place in higher education institutions. This, in turn, ensures the optimization of the educational process and serves to improve the quality of education, increase the level of its openness, objectivity and creativity.

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