



CLOUD TECHNOLOGY-BASIS OF DISTANCE LEARNING

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Abstract. In modern conditions of informatization of society, the deepening of the processes of independence taking place in Uzbekistan requires new approaches, methods and technologies in the field of education. The main component of the educational process (a pair of “teacher-student”) is the most important side of these changes in Uzbek education.

The distance course is a training system in which both the teacher and the student are present. This is training, not self-education. The teacher in this system performs the inherent functions of managing the learning process. Each training system is based on a specific didactic concept, which determines the selection of content, methods, organizational forms, teaching aids.

Do not mix distance learning and correspondence learning. Their main difference is that distance learning provides a systematic and effective interactivity. It should be considered distance learning as a new form of learning and, accordingly, distance education (as a result, as well as a process, system) as a new form of education. Although it cannot be considered as a completely autonomous system. Distance learning is built in accordance with the same goals and content as full-time study. But the forms of presentation of the material and the forms of interaction between the teacher and students and students are different. The didactic principles of the organization of distance learning (the principles of scientificness, systematic and systematic, active, the principles of developing education, visualization, differentiation and individualization of instruction, etc.) are the same as in full-time education, but their implementation is excellent due to the specifics of the new form of education, information opportunities Internet environment, its services [1].

In distance learning, the educational process is built on the same principles as in full-time – lectures, seminars, practical, and knowledge control in semesters and in sessions. But all this for distance learning students works in electronic format, is configured and improved by web tools and programs.

Distance education as a form of education (in most universities this is called distance learning) is a way to receive special, first, second, postgraduate education through online technology and self-education. In state universities, distance learning is a form of distance learning without the need for a physical presence at the installation and examination sessions, defense of term papers and a diploma at the university. Study takes place in the personal account of an electronic university.

The remote educational process is built in phases: the academic year is divided into two semesters, in the semester of 10-14 subjects, the programs of which students master independently and periodically confirm their knowledge in internal tests, seminars, practical and control. At the end of the sessions - online tests and exams.

E-learning has more ways and possibilities than the classic classroom. The use of various forms of distance learning solves academic problems at different

levels. Remote education tires less, retains interest and motivation [6–9].

Technologies based on cloud computing are one of the rapidly developing areas in the modern information world. Under the technology of cloud computing refers to an innovative technology that allows you to combine IT resources across hardware platforms in a single unit and provide the user with access to it via the local network or the global Internet. Cloud services from various providers offer users via the Internet access to their resources through free or shareware cloud applications, the hardware and software requirements of which do not require the user to have high-performance and resource-consuming computers [5].

The development of a distance course can be based on various pedagogical positions and concepts. Distance learning, individualized by its very nature, should not exclude the possibility of communication not only with the teacher, but also with other partners, cooperation in the process of various kinds of cognitive and creative activities. The problems of socialization are very relevant for distance learning. From this point of view, it's convenient to use cloud technology for training.

Cloud technology - it is a variety of hardware, software, methodologies and tools that are available to the user as Internet services, to achieve their goals, tasks, projects [2].

There are specialized cloud solutions designed specifically for educational institutions, among which two are most famous and in demand by higher education institutions – Google Apps for Education and Live @ Edu. Google Apps for Education (GAfE) is a suite of cloud-based applications provided free by Google for education. A similar service Live @ Edu (MLE), both in composition and in the quality of the services offered, is offered by Microsoft Corporation.

Google Drive is both -a document creation service and a repository of various files. Google offers two options for working with Drive. Firstly, using cloud technology, the user always has access to view and edit his documents through a browser. Secondly, you can free download the Google Drive application for a computer, tablet, etc., which allows you to synchronize files between the device and network storage. Thus, files can be edited and saved regardless of the Internet connection.

Google Drive enables the user to edit the permissions of their files: open them for reading, co-editing and reviewing.

By registering a Google account, the user receives 15 GB free of charge for storing files, emails and photos. However, not all files occupy storage space. Only

files that were not created using Documents, Sheets and Presentations [5] occupy a place in the Drive.

This repository is used during training sessions for correspondence students of the Tashkent University of Information Technologies (TUIT) named after Mukhammad al-Khwarizmi. To do this, a special logbook is formed and placed in Google Drive, where the maximum scores for each laboratory, practical work, intermediate and final control are indicated in advance (pic.1).

The screenshot shows a spreadsheet with columns for 'Фамилия' (Surname), 'Дата' (Date), 'Средний балл' (Average grade), and 'Максимальный балл' (Maximum grade). Rows list student names and their scores across different subjects and control points.

Picture 1 – General view of the logbook

Files and folders stored in Google Drive can be shared with other students. Opening access to the object, other students are allowed to view, comment on or edit it. To work with someone on MS Office files, you need to convert them to the Google Docs format. Students are given the right to comment – they can leave comments and propose changes, but do not have the right to edit the file or change access settings.

You can choose to whom the file will be available via the link. Students send their assignments to the designated folders for which “deadline” is set, after this time the points for the submitted work are reduced. Here, topics of term paper of varying complexity are exhibited and students are given the right to choose, which is represented by indicating the student’s last name opposite the topic. Students also have access to lecture material that they discuss together, ask questions to the teacher, which creates the illusion of offline work. I. e. full accounting of tasks in the selected subject.

Of course, the introduction of any new technologies has an impact on our lives, work, study, etc. It is impossible to cite as an example a single modern invention that would not help, but complicate life [10].

So are the “cloud” services that provide the highest level of security and confidentiality of data storage, allowing you to save on the purchase of licensed products, resources and programs. The introduction of cloud services in use is relatively slow, but it changes many areas of our lives. Particularly popular are cloud technologies in education, when you do not need to install a special platform on your own computer to gain access to various programs. Also, with the help of the cloud today you can get all kinds of remote services of specialists, so it is not surprising that entrepreneurs and businessmen now can hardly do without these wonderful technologies

The use of cloud technologies (cloud computing) by higher education institutions is a promising area that

can improve the efficiency of the educational process and reduce the overhead costs of its implementation. The capital costs associated with the creation and maintenance by educational institutions of their own data centers are significantly reduced, flexible scalability and high availability of services used in the educational process are ensured, which ultimately increases the level of satisfaction of the needs of end users: students, faculty, teaching staff support staff, as more time is freed up for educational and research tasks.

Thus, on the one hand, distance learning should be considered in the general education system (certainly in the continuing education system), assuming the continuity of its individual links. On the other hand, distance learning must be distinguished as a system and as a process. As in other forms of training, distance learning involves a theoretical understanding of the stage of pedagogical design, its substantive and pedagogical (in terms of pedagogical technologies, methods, forms of training) components. Therefore, the objectives of the stage of pedagogical design are: the creation of electronic courses, electronic textbooks, complexes of training tools, the development of pedagogical technologies for organizing the learning process in networks.

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