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DIDACTIC OPPORTUNITIES FOR THE INTRODUCTION OF CLOUD TECHNOLOGIES

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Annotatsiya. Ta'limda AKTlar sifatli o'qitishni ta'minlashda o'z hissasini qo'shishi, axborotlashgan jamiyatda AKTlari imkoniyatlaridan keng foydalanib, ulardan ta'limni zamonaviylashtirishda va yangilashda innovatsion hamda eksperimental vositalar sifatida foydalaniladi. Bulutli texnologiyalar talablar bo'yicha o'zi-o'ziga xizmat ko'rsatish va foydalanuvchilar uchun kompyuter resurslaridan kerakli miqdorda, provayder (tizim ma'muriyati) bilan kelishuvsiz foydalanish resurslarni birlashtirish imkoniyati orqali tavsiflanadi.

Tayanch so'zlar: Talim, AKT, axborot, Bulutli, hujjat, tizim, muhit, bulutli, texnologiya, component, Google docs, ma'lumotlarni saqlash.

Аннотация. ИКТ в образовании вносят свой вклад в обеспечение качественного обучения, широко используют возможности ИКТ в информационном обществе и используют их в качестве новаторских и экспериментальных инструментов в модернизации и обновлении образования. Облачные технологии характеризуются возможностью самообслуживания по запросу и использования необходимого количества компьютерных ресурсов для пользователей без согласия провайдера (системного администрирования) на объединение ресурсов.

Ключевые слова: Образование, ИКТ, информация, Облако, система, среда, облако, технология, компонент.

Abstract. In education, acts contribute to the provision of quality education, widely using the opportunities of acts in an informed society, they are used as innovative and experimental means in the modernization and renewal of Education. Cloud technology is characterized by the ability to provide self-service on demand and the necessary amount of computer resources for users, the possibility of combining resources without compromise with the provider (system administration).

Keywords: Training, ICT, information, Cloud, Document, system, environment, cloud, technology, component, Google docs, data storage

Introduction. The use of modern information and Communication Technology (hereinafter referred to as ICT) in the present civilized period is one of the mandatory conditions for the informatization of the educational process. In education, acts contribute to the provision of quality education, widely using the opportunities of acts in an informed society, they are used as innovative and experimental means in the modernization and renewal of Education.

Acts have the capacity to enhance the internal and external impact of the educational system in meeting the needs of the society on the educational process.



In 2004, UNESCO identified recommendations in the field of education in the information society. The interaction of teaching in mixed education can be realized on the basis of Education Management Systems (TBT) and internet technology.

Literature review. In this place, it will be worthwhile to clarify the concept of "distance learning system" (MOT), taking into account the first direction. That is, the MOT is an information system, on the basis of which the processes of planning (for any form of training) transfer and management of educational activities are carried out. To the mistress: "Moodle" (<http://moodle.org/>), "REDCLASS" (<http://www.redcenter.ru/?sid=336>), "Sekai" (<http://sakaiproject.org/>), "ATutor" (<http://www.atutor.ca/>) vs is an example. Moodle system I.G.Sabitova, I.L.Savostyanova, Y.A. In the research work of gorokhova, it is looked at as the basis for the implementation of a system of tools for the formation of ICT competency of students. Such systems allow to carry out pedagogical active interaction and demonstrate a wide range of tools that provide the opportunity to create and place training courses in the system[1].

The broad possibilities of redirecting to collaborative learning technologies (Messages, conversations, comments, etc.), file sharing in a variety of formats, etc., are their dealerships. Therefore, they are also not free from some shortcomings. First, teachers are often forced to work with reference to a particular interface within the framework of the specific logic of the environment. Secondly, the creation of educational components of the educational environment is present mainly in the teacher, which in some cases complicates the joint work of the educational process subjects, that is, communication can not provide for the attention of the ideology of the network community. Thirdly, the operational inconvenience of the MOT, that is, it is of certain importance (load on the server of the educational institution and problems in the system administration).

Research Methodology. The above-mentioned problems lead to the development of the second direction – that is, the application of internet technologies in the educational process. R when you say Internet technology N.Abaluyev, N.G.Astafyeva, N.I.Baskakova and other authors summarize "the automated environment of reception, processing, storage, transmission and use of information and their impact on the subject, which is carried out on the internet, including the machine and the elements necessary for Man (social)"[89]. In accordance with the logic of the research work, one will dwell on the direction of cloud technology - efficient and rapidly developing Internet technology-which is considered the most rational in terms of developing a single information learning environment. According to the results of a study conducted by the CDW in the US in 2011: "only 5% of colleges and universities do not think about moving to cloud technology, 29% have developed a strategic plan for the implementation of cloud technology, and 28% have already stated that they are implementing their plans on the basis of cloud technology." Also in the Russian Federation, it is possible to highlight some of the universities that use the services of this or that cloud technology[2].

Institute of Electrical and Electronics Engineers Institute of Electrical and Electronics Engineers Institute of Electrical and Electronics Engineers (Institute of Electrical and electronics engineers) on the basis of documents Peter Mell and Tim

Grans (National Institute of Standards and Technology (MSTI) Information Technology Laboratory, 07.24.11), Slepuxin and B.E. When Starichenkovar says cloud technology, we are talking about "cloud services - it provides for a complete set of services provided by the cloud technology provider, which has its own interface and the ability to change the process of processing without interrupting the work of its users," they say[3].

Analysis and results. Cloud technology is characterized by the ability to provide self-service on demand and the necessary amount of computer resources for users, the possibility of combining resources without compromise with the provider (system administration;

Universal network access capabilities dynamic processing taqsimlash (storage devices, fast access memory, network bandwidth, etc.), data between multiple data processing centers (MQIM) taqsimlash provides access to IT resources across a variety of applications and users in a disconnected mode. Customers receive cloud services from high-tech data centers, regardless of the terminal device used by the internet. The consistency of the services (which means that they have an "unlimited" scale) implies access to the system even in the "highest" part of the requests. The list of services can be automatically supplemented or reduced without additional contacts with the supplier, or to pay attention to consumption (payment of wages)[4].

A. Y. Analyzing the overall cloud storage by Sirotkin, he showed the following advantages of their use in the teaching of students

- file exchange can be carried out in such directions as: student-student, university-student, teacher-student;
- almost no training required to work with cloud storage;
- different types of files will be supported and there will be an opportunity to publish them on the internet;
- can work simultaneously with multiple files and folders;
- information on the local computer is automatically updated when it is updated on the internet;
- if multiple users are running at the same time, updating the files will affect all users.

A. I. Gazeykina and A. S. After looking at the analogous possibilities of using cloud technologies in the educational process (for schoolchildren), Govinas propose to implement Google Apps Education Edition services as an example, their implementation is as follows

- exchange of information and documents between students and teachers, including examination of assignments, advice on projects and abstracts;
- perform practical tasks on the processing of collaborative group projects of various information objects (text, tables, diagrams);
- discuss educational issues in real-time[5].

The possibility of increasing the communicativity and interactivity of the collective work of educators; providing the opportunity to choose a convenient time and place of study in them; knowledge management through the internet; S. A. Varakina emphasizes effective performance in the group discuss educational issues in real-time.



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Results and practical applications. The National Institute of standards and technology (NIST National Institute of Standards and Technology, USA) has identified the following classifications of clouds in a document called The NIST Definition of Cloud Computing:

- self-service on demand;
- access by wide path (access by wide network);
- (money) unification of resources (resource pooling);
- elastic State (fast elasticity) fast;
- dimensional service (measured service)[5].

Currently, cloud technology has been adopted to divide service delivery into three main models, sometimes referred to as cloud layers. These three layers are not cloud technology structuring, but reflect information technology as a whole tiradi.

Infrastructure as a service – infrastructure as a service is a set of physical resources, similar to servers, network equipment and storage devices, which are provided to the customer as services. It solves the issues of equipping the data processing center correctly and efficiently, providing computing power according to the need of infrastructure services.

Advantages. Abridged reduce capital investments in technical supply. As a rule, saving can be achieved through more efficient use of resources because virtualization methods are used in this model. Risk of loss of investments and a decrease in the period of introduction, automatic scalability.

Disadvantages. Business efficiency and labor productivity depend on the capabilities of the supplier. There is a possibility of requiring long-term potential costs. Centralization also requires new approaches to security measures.

Examples of infrastructure services include IBM SmartCloud Yenterprise, VMWare, Amazon YEC2, Win-dows Azure, Google Cloud Storage, Parallels Cloud Server etc.

Working with documents in the cloud. Two heads of the IT industry (as well as competitors) are Google and Microsoft. Both companies have released collections of services that allow them to work with documents.

Google Docs is a Free Online Office cloud file storage that includes a text processor, a spreadsheet processor, and a presentation creation internet service with file sharing functions.

This is a web application, that is, a program that works inside a web browser without installing on the user's computer, that is, an alternative version of any option Word, Excel, and so on, without the need to buy something and so on. Documents and tables created by users can be exported to Google or a file stored on a special server.

This is one of the main advantages of the program, because the entered data can be accessed from any computer connected to the internet (if the Access is password-protected)[6].



Second Microsoft Office web applications:

Microsoft Office, which is allowed to use the features of Microsoft Office web applications, is a web browser and working with documents (and not just viewing them, but also editing them) directly on the website where they are stored. So, the documents look the same as in the programs in the browser office, that is, in full, so to say, merge.

It is also worth noting that both services are closely related to Mail (Gmail in the first case and Hotmail in the second case) and you want to use them in the storage of files Google documents, it is enough to create a free Google account and you will get a number of programs for working with texts, spreadsheets, etc.in your browser. For many, Google documents have been completely replaced, as mentioned above, by paid Ms. Office[7].

Taking into account the didactic functions that cloud technology interacts with the basic forms of teaching, it can be noted that it is an important aspect of their implementation in connection with the practical training and the Independent Education of students, which indicates that the share of universities in relation to the requirements of the state standard of Education (the percentage of students

In addition to the obvious advantages, it is worthwhile to mention the difficulties that may arise when using cloud technologies. It is necessary to pay attention to the possible methodological and organizational problems of technical (non-availability of the internet or its speed is low), competency and motivational (difficulties for teachers and lack of understanding of the expediency of using such services), meaningful (inconsistency between educational needs and content and the resources of content). Just as well, this may include the limitation of the functional features of the software (in comparison with their local similarities), as well as the lack of a legal framework for the application of cloud technologies in the educational process in general. Blocking the service provider is also considered a risk issue.

Conclusions. 1. Groups based on the educational process, cloud-based technologies, (economic, technical and technological and didactic) can be used.

2. The improvement of the educational process with the help of cloud technologies (storage of large amounts of data in various formats, simplification of publishing materials, the possibility of placing them on the network) is based on their didactic capabilities; orientation to groups; innovativeness and modification; unification of Sciences; informality and friendly attitude; the possibility of independently developing critical thinking; their didactic functions (teaching, information-reference, cognition, developing, educational, stimulating, stratification of the process of mastering the teaching material and separation of its individual functions control, correction, diagnosis, self-presentation) possible complications of their use (technical, competency and motivational, methodological and organizational).

3. The use of cloud technology in the teaching of the information cycle of future economists and managers is based on the development of methodological and technological aspects, and it is at this time that this is being done adequately.

4. In conclusion ,we can say that the user (for these two services) is transferred from the usual offline environment to the online mode.

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