Stages Of Development of Cloud Technology in Education

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ABSTRACT

It is necessary to take into account the opportunities of the students without neglecting their personal e-learning environment. Education system based on cloud technology.

Keywords: Electronic textbooks, e-learning, education, method, information, environment, cloud, technology, component, Microsoft Office 365.

Introduction.

E-learning to the development of the educational system is developing around the world. For this purpose, the demand for open source platforms is increasing. The concept of "electronic education “is currently an extension of the term” distance education". E-learning is a broad concept that denotes various forms and methods of learning based on information and communication technologies. From this, the definition of e-learning comes out.

The basis of e-learning is occupied by technologies that provide distance learning. This will help technologies that are classified as technological standards in a single regulation of the diversity of technologies. Such standards help to regulate the interaction of the various components of the electronic learning system, Force programmers to adapt to the level given in the standard and ensure the provision of quality service [2, 4].

With the fact that e-learning is considered a new form of education, it is now very developing. History of e-learning forms of description of e-learning are given in terms of time scale.

Thus, it is possible to distinguish several large stages, each of which includes the form of describing e-learning, the technological standard and the character of the development of Education. We will consider each of them.

Electronic textbooks - a systematized and irregular carrier of information in a certain sequence (CD, DVD, etc.).k.) or training courses based on internet technologies.

Distance learning system (MTT) is an educational system based on means of exchanging distance learning information, with the help of special information environment, providing educational services to all strata of the population and foreign education recipients[5, 6].

Cloud systems- it is an educational system based on cloud technology [7, 8].

MOOCs (Massive Open Online Courses from English, MOOC) – public online open courses, which are one of the forms of distance learning and are allowed to use e-learning technologies in education and access freely through the Internet. Public online open courses began to appear in 2008 year, It began to become popular from 2012 year.

The basis of e-learning was Distance Education, which appeared at the time of the creation of the mail, at that time the teacher sent educational materials to the student so that he could receive independent education. At the beginning of the 90-ies, personal computers and the first electronic textbooks appeared. We can take the same period as the first stage of the development of electronic education [8, 9].

E-learning was first used by organizations that train their employees because this education system makes the budget an economy. From this, navigrations, text forums, role programs, etc. commercial products, consisting of a clear base, appeared. These were the beginning of the VLE. Therefore, we can characterize the second stage of the development of e-learning as corporate education. At this stage, more qualitative and complex e-learning materials (computer simulators, downloads according to the rule of silence, etc.), electronic means of education, the organization and conduct of the educational process will be created, various models of electronic education management will be developed, ways of assessing the quality and effectiveness of electronic education will be developed.

As the third stage of e-learning, "cloud" systems are characterized. But it's still too early to talk about the complete transition of e-learning social services to fully "cloud" systems, the cross-analysis of two widely used systems, Blackboard and Moodle, which are considered Vletisms that include the capabilities of Microsoft and Google's compatible cloud systems studied by Nial Sklater (Open University, UK), shows this. This analysis carries out only a large part of the functionality of the virtula training area, in addition to the assessment tools that cloud systems do not have much importance.

Parallel with the development of Social Services, a new trend has emerged in the electronic education system – Mass Open Online Courses or MOOCs.

MOOCs are free online courses that can take various forms that are developed in the field of Higher Education. MOOCs was developed as a special course applied to mass use.

The development of information and communication technology will be the impetus for the emergence of new forms of e-learning, which in turn will lead to the emergence of new standards. New standards are created for him when necessary.

Microsof cloudy technology for educational institutions. Microsoft Cloud: Office 365, Azure Education. Microsoft Office 365 provides full access to cloud services for educational institutions, which saves time and money, as well as increases the work productivity of students and employees. Exchange Online, SharePoint Online and office Web Apps, and cloud versions of Lync Online, with videoconferencing, the main features available will be free of charge. More information about the new prices and tariffs can be found on the link: Live@edu.Office 365 Education combines the power of familiar Office desktop applications with the online versions of next-generation Microsoft communications and collaboration services. With the robust security and reliability of a leading global service provider, Office 365 is easy to use and manage [9, 10].

More information can be found at the link: http://www.microsoft.com/en-us/office365/education/school-services.spx#fbid= RAc3tEIrx3K.

With the offer of Windows Azure in education, teachers will be able to incorporate process learning into one of the most innovative and rapidly developing technologies theoretically and practically. It's no secret that in a few years the demand for specialists in the field of cloud computing in the labor market will increase significantly. With the help of Windows, there is an opportunity to train such specialists in Azure educational universities.

Cloud computing involves launching applications or storing data on servers located in distributed data centers that can be accessed through the Internet. Similar applications for development and execution need a dedicated cloud platform. Such a platform is Windows Azure, an analogue of the" cloud " operating system Windows Server... However, if Windows

Server is the software that is purchased and deployed on the servers of your local data center, then the Windows Azure platform can be deployed in Microsoft data centers and used as an environment for developing and executing applications remotely from you. You do not have to buy and install the software, you only pay for renting the computing resources and capabilities of the Microsoft data center platform.

How does Windows Azure chlamydia? In essence runs Windows Azure false for each copy of the virtual machine application that was launched. The developer will determine the required data storage capacity and the required computing power (number of virtual machines), after which the platform will provide the appropriate resources. When the initial requirements of the resources change, according to a new request from customers, the platform will allocate or reduce an additional data center for the application.

A distinctive feature of the PaaS (platform as a service) model is the allocation of applications and infrastructure: the developer only needs to determine the amount of resources needed for the application and all actions to provide the requested resources, manage them. dinamik dynamic, monitoring, measurement and others are performed.

Students who want to study cloud technologies independently or work in projects in the cloud computing industry are also provided by Microsoft free access to Windows Azure, which allows them to enter the learning process without any restrictions.

Teachers:

5 month introduction

2 small computing nodes

3 GB memory

2 connections to the service bus

2 SQL Asure Web Edition (1 Gb)

Students:

The work is completed.

Since" clouds " are a collective concept, it makes sense to classify them by some kind of attribute. Below is the classification of "clouds", one of which was proposed by InfoWorld, and the other by the commercial director of Parallels, one of the leaders of theualualization market.

InfoWorld offers to divide all "clouds" into six types:

SAAS is a direct application as a service (e.g. Zoho Office or Google Apps).

Service computers-for example, virtual servers.

WEB Services in the cloud - Internet services optimized for working in a virtual environment (for example, Internet banking systems).

PAAS is a "platform as a service", that is, a new generation of web applications (for example, Live Mesh from Microsoft) that allows you to create a collection of opportunities at the request of the user.

MSP is a managed service provider that provides services to service providers (for example, built-in antivirus scanners for mail portals).

Commercial services platform-PaaS and MSP convergent (for example, Cisco WebEx Connect).

Clouds are divided into private, public, hybrid and clans [5, 8].

Personal cloud. Private cloud (English private cloud) is an infrastructure designed to be used by a single organization, including multiple customers (for example, divisions of a single organization), as well as customers and contractors of that organization. The private cloud can be managed and managed by the organization itself or by a third party (or a combination thereof), and it can be physically present both in the jurisdiction of its owner and outside.

Open Cloud. The public cloud is an infrastructure designed to be used free of charge by the general public. The public cloud can be owned, managed and managed by commercial, scientific, and government organizations (or a combination thereof).

Hybrid cloud. Hybrid cloud is a combination of two or more different types of cloud infrastructures (private, public or public) that remain the only object, but are either standardized for the transfer of data and applications, or interconnected with proprietary technologies (for example, short-

term use of public resource clouds). for the balance of the load between the clouds).

Clan cloud or collective cloud. Community Cloud is a type of infrastructure that is designed to be used by a specific community (clan) of consumers who have common goals (for example, Mission, security requirements, policies and compliance with different requirements). The public cloud can co-own, manage and operate with one or more public organizations or third parties (or any combination thereof), and it can exist both within and outside the jurisdiction of the owner.

Conclusion:

The main interrelated components of an information-learning environment based on cloud technologies are education, assessment, communications. One of the opportunities for practical implementation of an information-learning environment that allows us to harmonize the traditional tools and techniques of teaching is the set of tools provided by Google.

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