USE OF "CLOUD TECHNOLOGIES" THAT STORE AND TRANSMIT ELECTRONIC INFORMATION IN DISTANCE LEARNING

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ABSTRACT

This article deals with cloud technologies, their areas of application, convenience, capabilities, innovations, compatibility with technical devices, their role in student life and teaching, making them easier for teachers.

Keywords: Cloud technology, internet, computer, website, moodle, digital technology, mobile devices.

INTRODUCTION, LITERATURE REVIEW AND DISCUSSION

It is no secret that modern technology is the driving force of modern education. The impact of cloud computing on education is clear. Cloud technology is a good resource for both teachers and students as a result of improved attractions, reduced costs, and increased collaboration. In addition, all students, whether first graders or doctoral students, can benefit from the innovations in cloud computing.

The NIST Definition of Cloud Computing (NIST National Institute of Standards and Technology, USA) defines the following classifications of clouds:

- On-demand self-service
- Broad network access
- Resorce pooling
- Rapid elasticity
- Measured service

It is now accepted to divide cloud technology services into three main models, sometimes called cloud layers. Types of computing "cloud technologies" Private cloud, Hybrid cloud and Public cloud types were studied. These three layers reflect not only the structure of cloud technologies, but the information technology as a whole.

Applications running on cloud technologies: Virtual Private Network - VPN, Amazon YEC2 and Amazon Simple Storage Service (S3), Google Apps / Docs, Salesforce.com, Microsoft Office Web.

On the web-server, the teacher conducts classes with students via links in their electronic data or directly linked to the URL during the online lesson, can use the products at any time.

Educational institutions are strengthening the connection between institutions and their students through the cloud. In this cloud-based education revolution, the following is happening.

Student convenience services work to meet the needs of all students. It can be difficult to attend lectures when it comes to students who may have difficulty moving outside the institution or performing tasks. The reality is that students are not always able to physically attend class. The development of distance education is changing the convenience for all students. Whether students are being treated in a day care facility, in a dormitory, or at home, students can receive continuing education online / offline through websites that are geared toward cloud technologies, regardless of their overall health.

The process of teaching and learning has never been easier. The records were first handwritten and then manually copied or copied. It was not easy to collect class notes from your classmates in the evening before the exam when there was little time left for the exam. Cloud computing in education is changing that. Lastly, you can use the trusted data bases created by your classmates or independently by teachers from anywhere with an Internet connection at any time of the day and without asking anyone for help. In addition, teachers can share valuable information and additional resources with students. Now it's not about being where you need to be at the right time, cloud computing allows for a fair distribution of data for everyone.

Because of the great advances in cloud computing, it only increases the chances of students benefiting. Teachers are now able to save time in planning and implementing lesson plans, only if they prepare virtual enriched databases that are relevant to the subject before the lesson begins and place them on cloud-based learning platforms for distance learning. From posting research in a specific academic journal to uploading lessons to the cloud over the next semester, cloud can facilitate the role of teachers.

Cloud computing is a modern approach to learning. From a student perspective, the use of cloud infrastructure allows them to modernize their approach to learning. Course management software like Moodle is an open source software package designed to help teachers create effective online learning. Now professors have the opportunity to quickly and efficiently share notes and lesson plans. This eliminates the need for heavy and outdated textbooks and facilitates e-learning. Learning platforms allow students to access and use a variety of resources, such as grades, discussion forms, and even information from other subjects they don't read on a website built on a group open source dynamic site.

A strong cloud infrastructure also helps eliminate the need for a complex physical documentation system. With cloud computing, you have direct access to data through specially designed learning platforms to ease the student experience and costs.

Teachers also benefit from enhancing collaborative learning by gaining access to live chats, broadcast lectures, online assessments, and virtual labs in their lesson plans.

Over the years, the education sector has come a long way. Teaching and learning is no longer limited to textbooks and classrooms, but now reaches computers and mobile devices. Today, students are in constant contact with each other and with students, whether they are on or off campus. At the same time, properly selected technologies can help them develop real and career-ready skills. Technology plays a major role in the development of this distance learning based on digital technologies.

A student in one corner of the world takes a course at an educational institution thousands of miles away. One of the technologies that drives innovation for this is cloud computing. In fact, cloud computing is a complex technology that transfers highlights from physical resources to

virtual ones. If you're new to cloud computing, Cloud Academy offers a comprehensive cloud computing basics training library that makes it easy to launch cloud technologies.

Cloud computing refers to the installation of computing resources that are shared everywhere, regardless of the location of the users. By implementing cloud computing, it will be possible to unite teachers and students on a single learning platform. Educational institutions such as schools, colleges, and universities do not have to purchase, own, and maintain their own servers and data centers. Instead, they can use cloud computing tools to access computing power, databases, storage, and other services when needed. In addition, they can always be sure that their resources are secure in the cloud.

Advantages of cloud computing in education

1. Strong virtual classroom environment. With the help of cloud software, educational institutions can have virtual classrooms for students. The concept significantly reduces infrastructure costs. They reduce the material costs of teachers and students. In doing so, they can collaborate with qualified coaches who work remotely and serve as cost-effective resources. However, teachers can create online courses anywhere and deliver them to students. Students can even save time and money and take virtual exams from anywhere.
2. Ease of use. When it comes to opportunity, the potential of the cloud is unequal. Users can easily access course content, applications and information anytime and anywhere. They can enroll in courses and attend group classes. Cloud technologies no longer have barriers of space and time, ensuring uninterrupted delivery of content at all times. It also provides access to content via mobile devices so students can learn easily on the go as well.
3. Extensive cost savings. Another benefit of cloud computing, which attracts everyone's attention, is that it saves huge costs. Both students and providers can benefit greatly in this context. Students should not spend money on expensive books and programs, as these learning resources are available on a cloud-based learning platform.
4. Secure data storage. In addition to convenience and cost savings, cloud computing also serves to store secure data. Organizations that teach through the cloud can adopt a VPN to ensure data security. VPN protocols are responsible for automatically encrypting outgoing data and traffic. This means that learning content can be easily transmitted to users without compromising its integrity. However, students can protect their personal information using a VPN for cloud-based learning applications.
5. Dimensionality. Dimensionality means that applications are appropriate for an increasing number of users. Cloud computing also covers schools, colleges and universities in this area. This allows them to expand their training programs and experiences quickly and easily. As a result, they can work with more and more students. In addition, scalability allows them to manage freezes and interruptions on the server due to the large number of users on the server at the same time at the highest level caused by tasks such as recording readings and handing over assignments.
6. Agility and novelty. Learning on computers in cloud technologies allows students to experiment faster and more frequently. The increase in internet speed can be the basis for students to learn better, to work innovatively to create their experiences. This is possible because new tools and features can be developed, tested, and deployed to make them better than their predecessors.
7. Help students more. Cloud computing in education allows students to broaden their horizons. Those who are dissatisfied with traditional education systems can now learn a new concept of online education. For students who want to choose to study remotely or even study abroad, cloud technology works wonders. Working professionals who cannot attend regular classes but want to improve their skills can also take part in virtual classes.

8. Minimum technical requirements. In cloud-based applications, hardware resource requirements are minimal. These applications can run seamlessly on both desktop and mobile devices in Internet browsers. Students can manage learning through their own mobile phone. You do not need to invest in an expensive computer to attend the course. In addition, they do not require external storage devices because they have access to cloud-based free memory.

The use of cloud technologies by students in the study of information science in educational institutions is not only the study of these sciences themselves, but also:

1) development of interaction between teachers and students in the educational process using cloud technologies;
2) increase students' information literacy;
3) study the basic concepts of information security;
4) have the skills to work with different file storage depots;
5) have the skills to create websites for specialized organizations, depending on the direction of training;
6) the ability to organize group interactions in project activities using cloud technologies.

The use of cloud technologies in the learning process increases the quality of learning materials and cognitive activity of students. There is a growing interest in both the science under study and information technology and their application in the professional activities of future professionals.

It depends on:

- dynamic application of modern information technologies in all spheres of activity and ease of their use in the teaching process;
- The availability of many available services that can be used for the effective implementation of the educational process and innovative activities of students, individual and group work. Google services stand out in this regard;
- A significant percentage of the creative approach in the implementation of projects, the activation of inter-project contacts;
- the multi-system nature of the services used and, consequently, a cross-platform that allows you to work on almost any modern device connected to the Internet.

In short, when cloud computing technology is adapted to education, a world of new possibilities opens up for enthusiastic students. In addition, due to ongoing innovations in the cloud, convenience, cost savings, and collaborative learning can all become commonplace.

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