

Research on the Sharing Mode of Digital Educational Resources in Colleges and Universities in Cloud Computing Environment

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Keywords: Cloud Computing Environment, University Digitization, Educational Resources, Sharing Mode.

Abstract: The inevitable trend in the development of colleges and universities is that the model of digital development of colleges and universities involves a lot of quantity, so we can use cloud computing, which cannot only facilitate the processing of all kinds of big data, but also enable colleges and universities to enjoy digital educational resources through research. It can also let colleges and universities improve the digital model at an early date, after all, the development of major colleges and universities in China is uneven, so the degree of digital development, there are high and low, and the degree of using cloud computing is also different. This paper briefly discusses the mode of digital education resource sharing in the cloud computing environment.

1. Introduction

In recent years, more and more people have begun to pay attention to the digital sharing mode of educational resources in colleges and universities, because after entering the market resource sharing, the resources can be optimized to the greatest extent, so that all kinds of resources in colleges and universities can be evenly distributed, and the gap caused by resources in different colleges and universities in different regions can be reduced. At the same time, it can also improve the utilization rate of resources, give full play to the maximum extent of resources, and then meet the increasing needs of different users in colleges and universities. After all, in our country often because of the management system, technical measures and other factors, the resources of colleges and universities are shared and circulated, especially the digital resources sharing work is not in place, so there is still a big gap between the actual needs and the implementation of shared resources. Due to the continuous development of cloud computing technology, the digital level of higher education is also rising steadily, because cloud computing has a powerful function, so it has penetrated into all fields of higher education. The application of cloud computing in higher education teaching can have a very far-reaching impact on its internal resource construction, management of resources, sharing methods, and can promote the development of practical teaching. Therefore, in the sharing of digital educational resources in colleges and universities, the application of cloud computing is an inevitable development trend of future education.

2. Overview of Cloud Computing

The summary of cloud computing, which was first proposed by google, is internet-centric, based on service and disclosure, and belongs to an emerging approach to shared infrastructure. Cloud computing can provide more secure and fast web computing services through a large number of servers, so long as users access browsers through the client, they can access applications and services anytime and anywhere.

Cloud computing has five advantages: it is safe and reliable, fast and convenient, meets the needs of users, super computing power and economic benefits. First of all, it allows you to share data resources with the designated person with more stringent permission management, and users can store their data in the cloud. Management information resources are the most professional team, so

you don't have to worry about data loss or data failure caused by computer virus intrusion, so users can enjoy the best and safest services. Second, users need only a computer and browser that can access the Internet to provide cloud services anytime, anywhere. And in the use of the process does not need to download, so it is very convenient to use. While the number of users is increasing, it integrates resources to provide a more humane service, offering a variety of personalized services according to the different needs of different users. For a cloud service that belongs to a very powerful server, it is made up of thousands of computers, so it has very powerful computing and data processing capabilities that are difficult to implement on a personal computer. The economic benefits are reflected in the software and hardware. As long as colleges and universities rent the equipment in the cloud, they can build their own information education platform without having to buy the more expensive hardwareReady [1].



Figure 1 Trends in cloud computing

3. The Current Situation of Digital Education Sharing Resources in Colleges and Universities in the Cloud Computing Environment

The present situation of digital education sharing resources in the cloud computing environment in colleges and universities in the construction of digital education resources sharing work, each school investment level is different, many of the existing distance network education resources will be available to users outside the school, generally including the network and quality courses, and for adult education online resources, many of the online users need to pay outside the school to use these free resources. At the same time, other digital network education resources, such as subject resources multimedia resources are only for school users, will not open to the public. There are also some resources, such as their works in the competition process, whether outside school or on campus, to obtain such resources is more difficult, so this will make the resources continue to build, resulting in a waste of resources. In addition, the purpose of sharing educational resources is to improve the utilization of resources, make information management more quality, and make the allocation of educational information resources more optimized. Therefore, the sharing of educational resources in colleges and universities should be able to make the campus interior and exterior enjoy the digital educational resources in a certain way, including subject resources, network resources, teaching management information, multimedia resources, library literature resources, software resources and so on.



Figure 2 Service construction of school library in cloud computing environment

Under the cloud computing environment, the service construction of the school library and the problems of the major colleges and universities are mainly due to the imbalance of the region in the process of the construction of the digital education resources, such as the literature resources, many schools have different aspects in the construction of disciplines, setting up specialties and investing funds, so the quantity and quality of the literature resources will be obviously different. And many colleges and universities will emphasize self-sufficiency, so it makes a lot of money waste, so that the literature is re-collected. There are some traditional documents are being transformed into digital documents, but the technical gap between regions is also relatively obvious. Secondly, almost all colleges and universities will use the campus network for teaching, administration and scientific research. Ninety percent of colleges and universities have entered the campus network in the dormitory, especially some multimedia classrooms, some schools have even been upgraded to the ten thousand megabytes campus network, and on the basis of the very high quality of technology and hardware conditions, it will no longer hinder the sharing of resources, so the biggest problem or in the planning has not been integrated management, everyone is separate, no system has been formed, and there is no open and shared between the scope of sharing resources is relatively small. Up to now, there is no real platform for sharing educational resources between colleges and universities[2].

4. The Advantage of Cloud Computing for Digital Education Platform Sharing in Colleges and Universities

The advantage of cloud computing is to be able to use some virtual technology to break through the bottlenecks and barriers in hardware, to effectively improve the utilization of information and resources, to share educational resources among different educational institutions through simple management mode, and to optimize and integrate those incomplete and scattered educational resources.

4.1. To Promote Cost-Saving in Education Resource Sharing

when building a shared platform, one can rely on the educational resources of cloud computing, one does not need to invest in large-scale hardware facilities, but only to equip the server with a shared platform to do a good job of construction, then the storage and management of digital educational resources will be given to the providers of cloud services, and users will only need to connect the terminal devices to the network to obtain the various educational resources they want. At the same time, the client terminals of users can access colleges and universities to check their educational resources almost without any upgrade. In the process of constructing the digital education sharing platform, the cost of colleges and universities is to update the server terminal, maintain the system and operation, and purchase the initial network access equipment. Using cloud computing to avoid these costs, schools and students can use cheap old computers, smartphones and other mobile terminal devices to connect to cloud services, and can effectively reduce the cost of

resource sharing construction.



Figure 3 Devices used by cloud computing

4.2. The Devices Used in Cloud Computing

Form a powerful and secure resource-sharing platform-as you can see from the current situation, colleges and universities are still taking a more closed approach to building a resource-sharing platform, they are through the purchase or independent research and development to build a local independent sharing platform, so they will assume the larger security and operational maintenance issues alone. In the process of constructing the digital educational resource platform of colleges and universities, according to the cloud service and cloud computing, the scope can be set in a broader space to provide the sharing service for all kinds of university teachers and students, and then based on the cloud server on this platform, after all, the cloud server has the powerful computing power and the massive sharing resources, so it can make the sharing more convenient by accumulating and integrating these digital resources, thus greatly improving the efficiency of the use of the resources.

4.3. Promoting the Integration of Educational Resources in Colleges and Universities

The common problems in colleges and universities are the lack of cooperation, the duplication of resources and the isolation of resources. By organizing some people to construct and manage the digital educational resources, the university can build the resource sharing on the basis of service and cloud computing through the cooperation of cloud computing, and solve the problem of information resource duplication or lack of information sharing. By constructing the educational resource bank, the university can complement each other on the resources, and let the university create a good academic atmosphere of education through information exchange[3].

5. Conclusion

Through the analysis of the full text, we can know that the technology of cloud computing is becoming more and more mature, so it can play a very important role in the sharing of digital education resources, and the various services provided by cloud computing can enable schools to establish the sharing model of digital education resources. Break through the bottleneck of constructing the shared platform at present, improve the efficiency of the use of shared resources, reduce the cost, and make the effect of digital education resources sharing in colleges and universities become better.

Acknowledgements

Research project of higher education teaching reform of Southwest Petroleum University in 2018, Research and Practice on top design of teaching facilities construction in Colleges and Universities-Take the construction of teaching facilities of Southwest Petroleum University in the next five to

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