

Research on Higher Vocational Education Resources Sharing Based on Cloud Computing and Big Data

Zhibiao Lu

Guangdong Women's Polytechnic College, Guangzhou, Guangdong, China

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Abstract: the current society has entered the internet era, and big data and cloud computing technologies have changed people's lives, making information processing and transmission more convenient. The same is true for the field of education. Cloud computing and big data technologies can effectively realize the sharing of educational resources and solve many defects in traditional education. Based on this, I start with the development of cloud computing big data. I first explore the precautions for the application of cloud computing big data in higher vocational education resource sharing, and then explore the development strategy of higher vocational education resource sharing based on cloud computing big data. I hope that i can borrow this provides a certain reference for the modernization strategy research of higher vocational education resource sharing.

1. Introduction

After entering the 21st century, information technology has developed at a high speed, and a new network big data pattern has been formed, which not only affects the socio-economic shape, but also changes people's lifestyle. With the rapid development of information technology, cloud computing and big data technologies have also emerged one after another. With the help of a high degree of information aggregation and collection, they can effectively organize and share information, and these two technologies can also be used in the informationization of education. Facilitate sharing of educational resources.

2. The Development of Cloud Computing and Big Data

Cloud computing implements information feedback through multi-server system processing. It uses distributed computing to solve data processing tasks and can effectively optimize the speed of network services. In addition, cloud computing has a strong expansibility. People are not restricted by time and space when acquiring resources, which can improve the utilization of network resources. The concept of cloud computing was first proposed in 2006, and it is also the focus of the third Internet revolution. In the process of continuous development, cloud computing has overturned traditional social work models and business models. With high reliability, high flexibility, the characteristics of high cost performance and good dynamic scalability have become popular technologies in the current society.

Big data technology is a large-scale processing of large information data, and then reflects the characteristics of the data, its essence is data processing and organization. Because in today's highly developed society, the faster the flow of information, the effective integration and processing of data can help companies gain market opportunities and improve their own competitiveness. Therefore, big data technology has become the key to companies' preemption of social resources. Generally, in the application of big data technology, it will be deeply combined with cloud computing to process huge data sets, and then provide the basis for various decisions. From a development perspective, since its inception, big data technology has provided important help in many areas and is also an important national development strategy.

3. Precautions for the Application of Cloud Computing and Big Data in Higher Vocational Education Resource Sharing

Higher vocational education is an important part of China's education. It can export a large number of practical talents for the society, and it plays an important role in the development of society and economy. Therefore, in China's education reform, many adjustments have been made to vocational education. At present, society has entered the information age. Computers are closely related to the network and people's lives. Computer and network are also used to optimize teaching in the teaching activities of higher vocational education. Of course, after the birth of cloud computing and big data technology, it provided new ideas for the reform of higher vocational education, and applied them to the sharing of educational resources. This application makes the educational resources of higher vocational colleges more effective for people. It is extremely important for optimizing teaching and expanding the reach of education. Of course, the application of cloud computing and big data also needs to make some improvements to the current teaching. In combination with the current actual situation, the application of cloud computing and big data technology in the sharing of higher vocational education resources needs to pay attention to the following issues.

3.1 Innovative Teaching Ideas

With the advent of the Internet era, people's lifestyles have changed a lot. For young people, they have a stronger ability to receive new things and new ideas, so the open network environment has a greater temptation to them. This network environment can also bring new opportunities for the change of teaching work in higher vocational colleges, because the use of the network can effectively expand the teaching content of higher vocational colleges, and provide students with personalization through open and interactive features. Services in this way can achieve the subversion of traditional teaching methods, break the constraints of time and space, and provide students with better quality teaching.

For cloud computing and big data technology, it can provide new teaching concepts for vocational colleges and establish a modern web-based teaching system. For example, higher vocational colleges can share educational resources on the network, and students can access and utilize resources through computers and networks. Not only is the entire process more convenient, but it can also meet the educational needs of students in a diverse manner. Of course, the concept of innovative education is also an important basis for the introduction of cloud computing and big data technologies, because this new type of education method is not completely unified with traditional classroom teaching methods. Therefore, it is necessary to innovate classroom teaching methods when introducing and applying new methods. Thinking to carry out teaching activities.

3.2 Update of Teaching Content

The current reform of education in China focuses on the introduction of informatization, which not only introduces the Internet to classroom teaching activities, but also configures various intelligent devices for teachers to facilitate the communication and exchange between teachers and students. Judging from the actual application situation, the modern teaching mode is of great significance for improving the intelligence of the classroom, and it is also conducive to motivating students' learning enthusiasm. Using the Internet as a teaching aid can effectively develop and utilize teaching resources to further expand the depth of the classroom, it has obvious advantages over the traditional teaching mode. However, when using cloud computing technology and big data technology to carry out teaching activities, it is necessary to pay attention to the updating of teaching content, because this teaching method must fully respect the self-awareness of students, and is intended to improve students' innovative ability. It must be diversified, resource sharing must be carried out in different categories, so that students can make independent choices and develop personal capabilities in order to lay a solid foundation for the long-term development of students.

3.3 Changes in Teaching Style

To carry out teaching activities in an information technology-assisted environment, the teaching form also needs to be changed to some extent. It cannot simply adopt the traditional classroom teaching mode. Teachers should guide students to learn, and students should think and break through. For example, group teaching and discussion teaching are more suitable, which can also make full use of classroom resources and respect the independence and autonomy of each student. Because information technology provides a large environment for students' autonomous learning, teachers can return the classroom to the students and make them the masters of the classroom. Under this form, they can effectively improve the students' innovative consciousness and cultivate diverse talents.

4. Development Strategy of Higher Vocational Education Resource Sharing Based on Cloud Computing and Big Data

The development of cloud computing and big data technology is relatively short. At present, the integration with the field of education is still in the exploratory stage, so certain problems will inevitably arise in the process of application. However, from a development perspective, the use of cloud computing and big data technologies for teaching resource sharing is essential, which is the key to building a modern "Internet + education". For higher vocational colleges, the use of cloud computing and big data technology to establish a corresponding teaching system platform can realize the transformation to a smart campus. At the same time, the corresponding network platform can also provide students with massive resources and let students make their own choices. Not only can it improve the utilization of educational resources, but it also enhances the personalization of teaching and fully respects the students' voluntary will. Through cloud computing and big data technology, education resources can be shared on the network platform, thus breaking the traditional classroom teaching model. Under this environment, the teaching of higher vocational colleges is divided into offline and online parts. Most of the online teaching is to explain the knowledge points, while offline is more focused on teachers to guide students to practice. Of course, the sharing of higher vocational education resources based on cloud computing and big data technology is not simply a reflection of online teaching. It can also increase the depth and breadth of the classroom and facilitate the autonomous learning of students. Judging from the current development trend, the use of cloud computing and big data technology for education resource sharing has become the general direction of the future, so in the current application, we must pay attention to the improvement of the problem, so that its application can be more reasonable.

4.1 Technical Security

Cloud computing and big data technologies are modern information technologies based on the network. They can provide convenience for people's information transfer, but they also need to pay attention to technical security issues in the application process. At present, people pay more attention to privacy protection and have a higher sense of security. This is also true for the sharing of educational resources, which requires data protection. Therefore, when using cloud computing and big data technology to establish educational resources sharing in higher vocational colleges, we must not only pay attention to the content update, but also need to use encryption technology to protect the security of data transmission. At present, there are many options for network security firewalls and encryption systems. Higher vocational colleges can purchase or customize them according to their own needs. However, because cloud computing and big data technologies have multiple operational links when sharing resources, it is inevitable that security risks and vulnerabilities will occur. This requires continuous improvement and discovery during the application process, system maintenance and records, and technology Safety lays the foundation for the realization of educational resource sharing.

4.2 Introduction of Hybrid Cloud Computing

Cloud computing technology can be divided into private cloud and public cloud, mainly to meet different usage needs, and currently there are hybrid cloud computing technologies that can achieve the combination of the two, not only reducing the cost of use, but also It also enhances data mobility. For higher vocational colleges, the most fundamental purpose of educational resource sharing is to provide students with convenient resource services and maximize the process for students to obtain information. The use of hybrid cloud computing technology can enhance mobility and direct teaching resources Combined with various mobile devices, students can learn anytime, anywhere. Therefore, this is also a strategy for optimizing the use of cloud computing technology and big data technology to achieve more personalized sharing of educational resources and improve the timeliness and convenience of teaching.

4.3 E-Learning and Digital Library

At present, computers and mobile phones are relatively popular. Through such terminal students can download network resources. This provides great convenience for autonomous learning, and is also conducive to the realization of lifelong learning and national learning. In some higher vocational colleges in China, lectures have been carried out in 100 schools. The colleges create distinctive courses, and then share educational resources on the Internet. This measure has achieved good results, so in the subsequent development, the application of cloud computing and big data in this area needs to continue to be strengthened to facilitate network learning.

The library is an indispensable construction for higher vocational colleges. It is an important place to disseminate knowledge. However, in the traditional use, the process of borrowing and borrowing is cumbersome, and it is difficult for students to find the materials they need quickly. Waste, and it is not conducive to promoting students' enthusiasm for learning. However, the use of cloud computing and big data technology can realize the creation of digital libraries. Students can quickly locate the books they need and then download them directly from the network, which greatly simplifies time, and the digital library can avoid excellent books. Damage and other issues have reduced operating costs.

5. Conclusion

With the advent of the information age, cloud computing and big data technologies have gradually appeared in people's lives. It has overturned traditional information processing methods and provided great convenience for people's work. Due to the superiority of cloud computing and big data technology, it also has certain applications in the field of education, which can realize the sharing of educational resources. Therefore, this article focuses on the issues related to the sharing of educational resources in higher vocational colleges. First, it analyzes cloud computing and big data. Data technology should pay attention to the innovation of teaching concepts, teaching content updates, and changes in teaching formats in the sharing of higher vocational education resources, and then combined with the current development trend, it puts forward the focus on technical security, the introduction of hybrid cloud computing, the construction of online learning, and digital libraries It is hoped that it can provide a certain direction for the application of cloud computing technology and big data technology in the sharing of educational resources in higher vocational colleges.

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