On the Application of Big Data and Cloud Computing in the Smart Campus

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Abstract: with the continuous development of the times and the continuous improvement of science and technology, information technology has gradually been applied to all aspects of society, which has played an indispensable role in promoting the development of society and has become a part of the process of social development. Important driving force. As an important part of information technology, big data and cloud computing technology, its rational use in the smart campus has a positive effect on the development of the smart campus. This article mainly describes the application methods and significance of big data and cloud computing technology in smart campuses, as a reference for the exchange of related people.

1. Introduction

In the course of the development of the modern society, our country has gradually entered the age of information technology, and the development of the intelligent campus is inseparable from the development and progress of the information technology. Big data and cloud computing technology is an important symbol of the progress of the intelligent campus in the modern society, and provides sufficient power for the development of the smart campus. The use of intelligent campus accelerates the process of modern campus construction, so that students can learn in an intelligent environment, so the modern campus construction can not be separated from the use of big data and cloud computing technology.

2. The Significance of the Application of Big Data and Cloud Computing in the Smart Campus

Under the background of modern society, the development and operation of smart campus must apply big data and cloud computing technology reasonably. At the same time, big data and cloud computing technology are also an important driving force in the development of smart campus, which guides the right direction for the development of smart campus. Big data and cloud computing technology can provide a good and intelligent environment for students' learning, and the learning efficiency of students is improved to a certain extent. The development and operation of the intelligent campus has greatly promoted the application of the big data and cloud computing technology in colleges and universities, and made the university move towards the direction of the smart campus (as shown in Figure 1). Smart campus is built on the basis of the Internet, which also provides some convenience for students and teachers. The application of big data and cloud computing technology in intelligent campus can effectively improve the service quality of intelligent campus, so intelligent campus can play its own role more fully and provide intimate services for teachers and students [1]. The application of big data and cloud computing technology in intelligent campus conforms to the trend of the development of the times, is the product of the development of the times, meets the requirements of campus in modern society, promotes the development and progress of society, and facilitates the development of learning and teaching of teachers and students. With the increasing popularity of information technology, the development of university information has become a trend. The operation of big data and cloud computing technology has promoted the process of information construction in colleges and universities, so that colleges and universities can move forward along the direction of information technology. The rational use of big data and cloud computing technology in the intelligent campus can effectively

improve the level of the intelligent campus, promote the application and development of the intelligent campus in the university, and make the university develop in the direction of the intelligent campus. The development and improvement of the intelligent campus in the modern society is inevitable, and the big data and the cloud computing technology are also an inevitable direction of the development of the intelligent campus, and the operation of the past smart school has not been able to meet the requirements of the present society for colleges and universities, Therefore, the smart campus also needs to follow the pace of the development of the times, constantly improve the direction of the development of the times, and guarantee the application of the smart campus to meet the reality and demand of the university better.The integration of big data and cloud computing technology in smart campus also provides guarantee for the application and development of it. Big data and cloud computing technology are the inevitable trend of the smart campus, and is an indispensable energy to promote the development of smart campus, which has a profound influence in the development of smart campus[2].
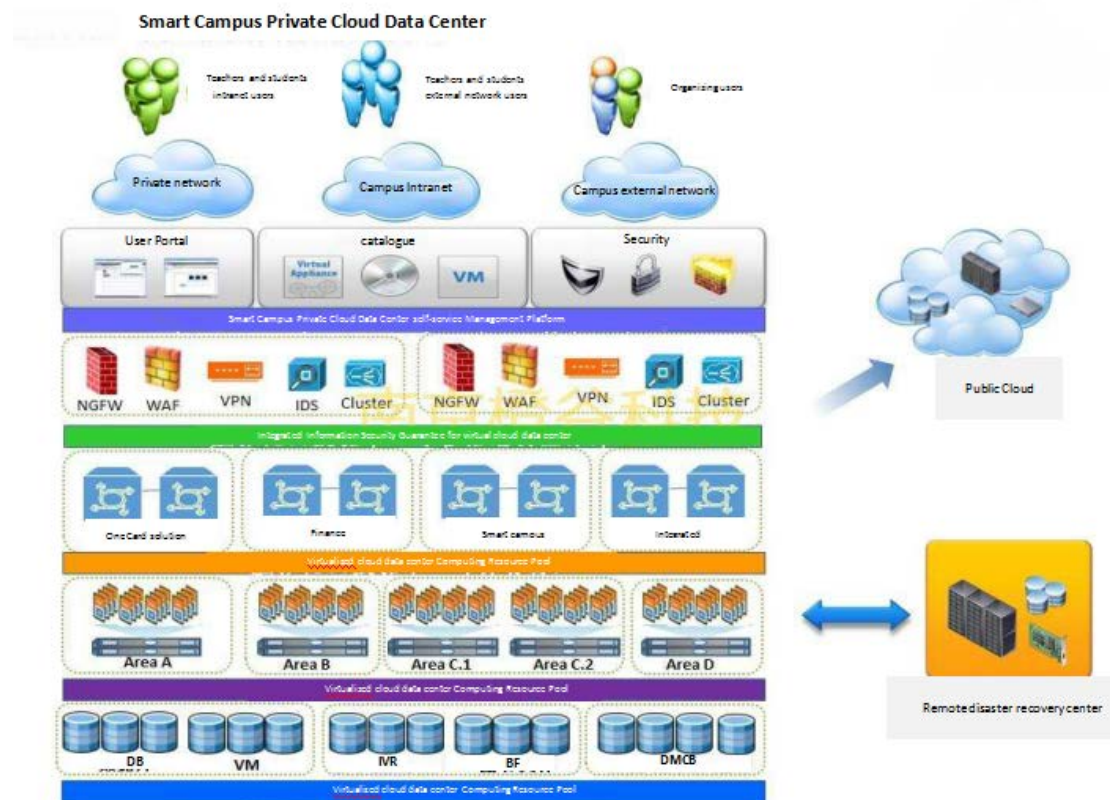

Fig.1 Smart Campus Cloud Data

3. Problems in the Application of Big Data and Cloud Computing Technology in Smart Campus

The smart campus is a special platform constructed by the Internet in colleges and universities, which provides certain services for teachers and students, and facilitates the teaching and learning of students and teachers. The application of big data and cloud computing technology in the smart campus has greatly improved the service level of the smart campus, so that the smart campus can better serve teachers and students.However, the application of modern big data and cloud computing technology in smart campus has not passed the test of time, there are still many unresolved difficulties and problems, and hidden many risks This has had the certain hindrance function to the intelligence campus development, has caused the disadvantageous influence to the intelligence campus development and the progress.First of all, the application of big data and cloud computing technology in smart campus needs the actual situation of universities. However, the development of smart campus in many universities has been divorced from the reality of universities Therefore, the intelligent campus can not provide good service for teachers and students

in colleges and universities, which may even hinder the development and progress of colleges and universities.Manpower is an important basis for the development of smart campus, and the operation of new smart campus requires high personal ability and quality of its managers.However, many colleges and universities lack effective management in the operation process of smart campus, and high-quality administrators are relatively short, and many smart campus administrators can not understand the situation of smart campus very well In the event of an emergency can not make a better deal, which also for the operation of the smart campus has a certain hidden danger.Most smart campus managers have little knowledge of Big Data and cloud computing, so it is difficult to play the role of big data and cloud computing in smart campus operation Can Not effectively promote the use of smart campus, which is not conducive to the development and progress of smart campus.The application of big data and cloud computing technology of smart campus, also requires that smart campus covers all aspects of students' and teachers' learning ,so High and new technology is also playing an important role in the operation of smart campus, and the improvement of technology also makes big data and cloud computing technology better integrated into the operation of smart campus (figure 2) . But, under the circumstances of the operation of the modern smart campus, the technology is not mature enough, which causes some obstacles to the application. In the course of its operation, risks and problems easily arise, threatening the personal safety of teachers and students Has had the negative negative influence to the university's Development [4]

Fig.2 Smart Campus Data Analysis

4. Application of Big Data and Cloud Computing Technology in Smart Campus

4.1 To Enhance the Personal Quality of Intelligent Campus Administrators

Manpower is the foundation of development. In the application of big data and cloud computing technology in smart campus, the personal ability and level of smart campus administrators have a great influence on the development and improvement of smart campus,Therefore, in the application process of big data and cloud computing technology, we must attach importance to the personal ability of smart campus administrators, so that the smart campus administrators can play their roles fully in the operation process of smart campus, to ensure the smooth and healthy operation of the intelligent campus in colleges and universities.Colleges and universities should organize the corresponding smart campus management personnel to carry out certain training regularly. Through training, the smart campus management personnel can study the relevant work to enhance the work ability of the management personnel, to improve the emergency response ability of the intelligent campus management staff, so that the intelligent campus management staff in the face of emergencies can be calm and timely to deal with, avoid the risk of intelligent campus operation.In the process of training in colleges and universities, it is also necessary to enhance the practical application of big data and cloud computing technology to the managers, they can use big data and cloud computing technology reasonably in the operation of smart campus, so as to promote the

development and progress of smart campus.Colleges and universities should also strengthen the publicity of big data and cloud computing technology, and ensure that the administrators of can fully understand the necessity and importance of the application, promote the knowledge of cloud computing technology and big data technology among smart campus managers.The smart campus platform is constantly developing, so the technical level and thought of the managers of the smart campus also need to keep up with the pace of the development , and better adapt to the operation and development of the smart campus platform in universities, in order to promote the development and progress of institutions of higher learning (fig.)Colleges and universities also need to recruit a new batch of high-quality intelligent campus management staff, so that the overall level of the intelligent campus management has been enhanced to a certain extent, the intelligent campus management has become more dynamic.Recruiting a new group of high-quality intelligent campus to managers can effectively promote the innovation and progress of intelligent campus, so that big data and cloud computing technology can be more fully integrated into the operation of intelligent campus, better play the role of big data and cloud computing technology, improve the level of intelligent campus, so that intelligent campus can be stable and healthy development [5].
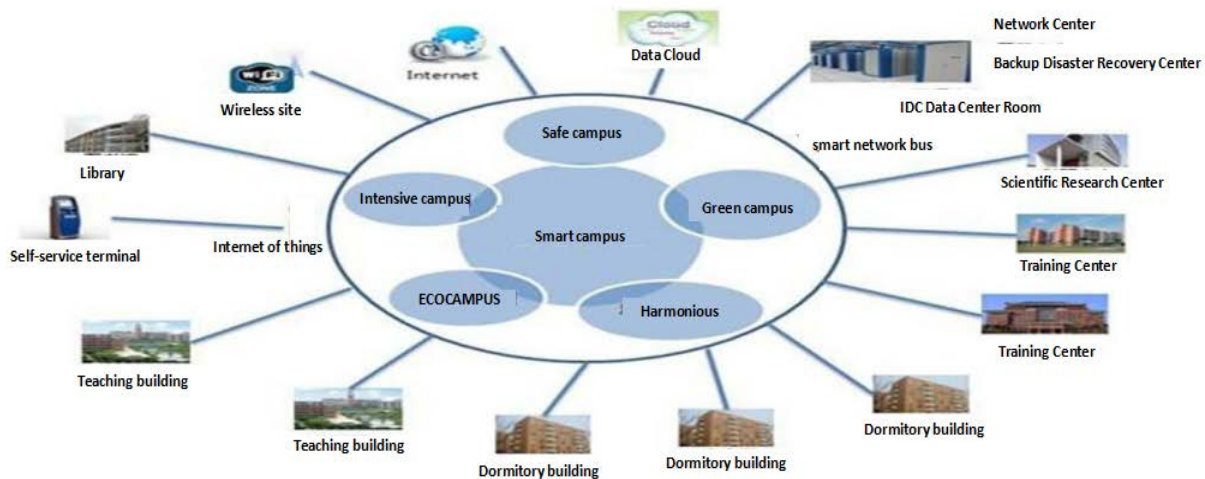
Fig.3 Building a Smart Campus

4.2 Build a Suitable Smart Environment

It is necessary to construct a suitable intelligent environment for the application of large data and cloud computing technology in the intelligent campus. The operation also needs to conform to the reality of the university, and to promote the development and application of the intelligent campus from the actual situation. Therefore, colleges and universities can use big data and cloud computing technology to build a suitable intelligent environment for the study and life of colleges and universities, connect students, teachers and teaching resources, and effectively improve students' learning level. Students can learn without time and space in the process of learning, and can study anywhere at any time, which also effectively strengthens teachers' understanding of students, teachers can teach according to their aptitude, according to the characteristics of each student to carry out teaching, to provide protection for students' learning, so that teachers' teaching quality can be improved [7].

5. Conclusion

Under the background of the new era, the application of big data and cloud computing technology in intelligent campus can effectively improve the service level of intelligent campus, so as to promote the development and progress of colleges and universities. Although the application of the big data and cloud computing technology in the intelligent campus has not passed the time test, there is a certain risk, and the application of the big data and the cloud computing technology has caused a certain obstruction, However, the operation of big data and cloud computing technology is a great performance of the development of intelligent campus, and it is the only way

of the development and progress of the intelligent campus.

References

[1] Gong Xia, Liu Ping. On the application of big data and cloud computing technology in smart campus. Information and computer theory, 2019(1).

[2] Wu Qian, Tian Huayu, Liu Yushu et al.Research on intelligent campus system based on cloud computing and big data technology[J]. New communication in China,2019,21 (8).

[3] Liu Wenshan, Ji Zhaohua, Zhang Xiaohua, et al. "intelligence"-enabled big data to drive the construction of intelligent campus in higher vocational colleges[J]. Science and technology,2019 (10):20-21.

[4] Hao Yunliang, Hu Jun. Practice and Exploration of the Construction of Smart Campus in Higher Vocational Colleges _ Take the Construction of the Higher Vocational and Technical School in Suzhou as an Example[J]. Jiangsu Education Research,2019 (15).

[5] Song Haihong. The Application of big data Mining in the Construction of Intelligent Campus in higher Vocational Colleges [J]. Modern Vocational Education, 2017 (28).

[6] Sergeant Hang. Application Analysis of Big Data Mining Technology in Intelligent Campus Construction of Vocational Colleges [J]. Modern Vocational Education,2018(21).

[7] Shu Zhongping. On the Construction of the Smart Campus of Higher Vocational College in the Background of Big Data[J]. Science Park,2018 (5).