Construction of Smart Campus in Higher Vocational Colleges based on the Era of "Internet+"

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Abstract: *Based on the research on the construction of smart campus in higher vocational colleges in the era of "Internet+", grasp the significance of smart campus, analyze the external conditions for the construction of smart campus in higher vocational colleges, and combine the problems existing in the construction of smart campus in higher vocational colleges in China, we can build a perfect network communication platform, enrich teaching resources, build an advanced integrated information query system, establish a perfect organizational structure Construction measures such as building an Internet learning and communication platform, reasonable distribution of information-based teaching resources, and strengthening students' awareness of network security and prevention, comprehensively elaborate the importance of building smart campuses in higher vocational colleges in the era of "Internet+".*

Keywords: Smart campus; big data; Internet of Things; University informatization; Higher vocational colleges.

1. INTRODUCTION

With the development of the "Internet+" era, information technology has been widely used, and information technology has gradually become an important part of people. Especially in the network hypothesis and electronic educational administration, the work efficiency has been significantly improved. With the development of the information age, the construction of campus information gradually turns to the direction of digitalization and intelligence. The traditional information construction can no longer meet the development needs of modern people. The campus information construction needs to be improved. It is of great significance to build a smart campus and realize the interconnection of information, so as to promote the management level and operation efficiency of the school.

2. SMART CAMPUS

2.1 Internet of Things technology

The Internet of Things technology, also known as sensors, can effectively link people and things in the world to the information world network. The main core is to use various front-end information sensors. Infrared sensors, laser scanners and global locators are used to effectively identify and locate people and objects. At the same time, it is also necessary to use relevant information such as location and status to analyze data. Smart campus analysis mainly uses Internet of Things technology to accurately analyze data, so as to ensure intelligent management of smart campus.

2.2 Mobile Internet technology

Mobile Internet is a new product, mainly combining mobile communication technology, wireless communication technology and traditional Internet technology. At present, a large number of Internet mobile products have emerged. Mobile terminals are used in laptops, tablets, etc., so smart campus must have mobile Internet technology and provide high-speed and cheap mobile networks for users entering the campus.

2.3 Big data technology and cloud computing technology

For some unbearable time ranges, common software tools have the ability to manage and process data sets and adopt big data technology. Build a cloud computing platform, and share the processing results with cloud computing. To build a smart campus, a large amount of data and information will be generated in a short time. If we want to effectively use these data, we can reflect the intelligence of the smart campus.

2.4 Characteristics of Smart Campus

Through the research of relevant technologies, the author believes that smart campus should have the following characteristics; Smart campus should establish an information platform for massive data, so as to transmit and share data between different system platforms in a timely manner. Smart campus should. Better serve the school, establish a complete information system, improve work efficiency, and obtain the resources you want through mobile terminals at any time and anywhere within the campus.

3. ANALYSIS OF EXTERNAL CONDITIONS FOR THE CONSTRUCTION OF SMART CAMPUS IN HIGHER VOCATIONAL COLLEGES

3.1 Progress of information technology

In recent years, the continuous development of information technology has promoted the development of smart campus. It not only effectively improves the level of campus management, but also can be realized in many management work with the help of information technology and information system. The management in higher vocational colleges has gradually extended from the common educational administration management to the deep level management, and refined management strategies have been formulated. The wide application of information technology has provided great help for the construction of smart campus. In the construction of smart campus, we can fully use information technology to help campus management and complete teaching tasks, comprehensively promote the development of students, and improve the construction quality of higher vocational colleges.

3.2 Laying a good foundation for digital construction

The integration of digital campus construction is mainly achieved through a series of technical measures. By establishing a unified information standard, it is the digital campus construction [1] that has been applied in various information systems and provides a good platform for the construction of smart campus. In recent years, with the continuous popularization of information technology, higher vocational colleges pay more and more attention to the construction of digital campus. The construction of digital campus requires a lot of cost investment, and requires professionals to improve and transform relevant equipment to increase the coverage of campus wireless network. At the same time, under the conditions of software and hardware, ensure the construction of smart campus, ensure the interconnection of information, and improve the phenomenon of information simplification.

4. PROBLEMS IN THE PROCESS OF INTELLIGENCE CONSTRUCTION IN CHINA'S HIGHER VOCATIONAL COLLEGES

4.1 Imperfect information management system

At present, in the management of intelligent construction in some higher vocational colleges, the traditional management mode is still adopted, and the management consciousness of the era is not integrated in time, and the concept is backward, which leads to the teaching management not meeting the development needs of the society. The unsound management system has led to the low quality of teaching and the failure to formulate teaching plans and training programs based on the actual situation of students. Too much pursuit of theoretical knowledge in the classroom, and the teaching content is very single, which seriously restricts the students' innovative ability and practical ability.

4.2 Lack of campus network system

In recent years, many higher vocational colleges in China have not improved the network system, the main reason is that higher vocational colleges have not correctly understood the campus construction. The necessary condition for setting up a smart campus is the construction of network system. Therefore, to some extent, it will bring some problems to the construction of smart campus in higher vocational colleges.

4.3 Lack of teaching guarantee mechanism

Higher vocational schools should be aware of the importance of teaching mode innovation in the era of "Internet+"

[2]. Teachers are making perfect innovative teaching implementation plans in combination with the actual situation of students. According to the characteristics of the discipline, teachers of all specialties should innovate the teaching organization and organize various educational competitions for innovation and entrepreneurship in schools. Through this kind of competition, students with better performance will be rewarded. While improving the corresponding teaching mechanism, we should ensure that the funds can be accurately distributed, promote the student incentive mechanism, can operate smoothly, and stimulate students to have sufficient and full status to carry out innovation and entrepreneurship.

4.4 Lack of professional communication platform

In the process of building a smart campus, the most indispensable component is the communication platform. However, in the actual operation process, many vocational colleges have seriously ignored the communication platform. Although they have the intention to build it, there are no professionals to operate it, and lack of professionalism. To some extent, it can not meet the use needs of students, and will also affect the construction quality of the smart campus.

4.5 Lack of advanced campus management

The campus culture is affected by traditional factors, changing students' lifestyle, behavior habits and ideas, the development of Internet information technology, and the overall structure of society. Therefore, the traditional campus management model has been unable to meet the development needs of modern society. At present, most vocational colleges should formulate management systems based on the actual development needs of students and the development of the school in the process of student management. The traditional management mode not only hinders the construction of smart campus in higher vocational colleges, but also affects the free development of students and restricts the development of students' professional abilities.

5. EFFECTIVE MEASURES TO STRENGTHEN THE CONSTRUCTION OF SMART CAMPUS IN HIGHER VOCATIONAL COLLEGES IN THE ERA OF INTERNET+

5.1 Build a perfect network communication platform

In order to promote the construction of smart campus in higher vocational colleges, we must comply with the development needs of modern society. Relevant staff must take the network communication platform as the primary task and build a network platform of big data and cloud computing technology. And improve the campus internal network system, improve the professionalism of the communication platform, so as to meet the use needs of higher vocational students and speed up the construction of smart campus. Higher vocational colleges can enhance cooperation and communication between colleges and universities through WeChat, QQ, Weibo and other platforms to form a relatively complete learning system, which not only better carry out student management work, but also vigorously promote the development of smart campus.

5.2 Enrich teaching resources

"Internet+" has changed people's learning and understanding. The learning of various majors is no longer limited by space and time. For higher vocational colleges, the richness of teaching resources affects the development of students [3]. In the process of actual teaching, due to the limitation of time in class, some teaching resources are combined with students, mainly through smart campus, to provide the teaching resources accumulated by teachers to students, and to build a resource sharing platform for students. Smart campus should attach importance to teaching resources and improve students' interest in learning, so that students do not need to find resources themselves and can continuously meet their learning needs.

5.3 Build an advanced integrated information query system

In order to meet the needs of social development, higher vocational colleges need to build and strengthen the construction of smart campus, improve the campus network and ensure the security of information and data. more We should promote the management of college students to maximize their comprehensive management ability. In

a vocational college, an integrated information query system is built for students through big data and cloud computing. Before logging in, teachers and students can use it only after entering their own numbers and student numbers. Students mainly use the system to view their academic achievements and employment information [4]. And relevant teachers can understand each student's learning situation through the system, carry out targeted education, and effectively improve teaching quality and teaching level. Relevant staff can use information to query management information, and according to the information content, they can also formulate correct management plans to maximize the efficiency of college information management and reduce campus management costs.

5.4 Establish a perfect organizational structure

School administrators should vigorously support the construction of smart campus. Therefore, in the process of building smart campus, it is necessary to improve the organization to provide organizational support for the smooth progress of smart campus. In general, the construction of smart campus is a complex project, which involves many management departments, and requires effective coordination and management by management personnel [5] to provide a good external environment and conditions for the construction of smart campus. Plan and integrate smart campus. Formulate the school to establish perfect rules and regulations, take charge of the construction of smart campus through special organizations, effectively guide and timely develop the existing problems, and take measures to ensure the smooth development of smart campus construction.

5.5 Cultivate students' innovative consciousness

If the major of judicial information technology in China wants to make progress, it should innovate and cultivate students' innovative consciousness. Integrate innovation in activities such as teacher training, student teaching and subject department management, so that students and teachers have innovative awareness, integrate innovation into the whole learning or teaching, and combine multiple teaching resources. In teaching practice, we should combine teaching content with innovation awareness, cultivate students' innovation awareness, encourage students to actively start businesses [6], effectively improve students' innovation awareness, improve students' innovation and creativity, and enable students to have strong innovation and entrepreneurship awareness in the "Internet+" era.

5.6 Build an Internet learning and communication platform

Under the background of the "Internet+" era, various learning platforms appear on the network. Because the quality of these network platforms is different, the teaching effect is also different. Some network teaching platforms cannot meet the professional learning requirements of students. Therefore, it is very important to build a professional information technology professional network teaching platform. This requires all colleges and universities to learn from the experience of other schools
The teaching platform is discussed. Students can conduct professional exchanges through the online teaching platform. Teachers can also use the online learning platform to assign assignments to students [7], and expand the teaching channels. Fully expand teaching channels, use the network to carry out diversified teaching modes, promote students' comprehensive development, and effectively improve students' professional skills.

5.7 Reasonable allocation of information teaching resources

We are living in an era with information as the core. The impact of information technology on social production and life is becoming increasingly obvious. The huge role of information technology in promoting education reform is also highlighted in the practice of education and teaching. The development of information technology education in colleges and universities shows a trend of rapid progress [8]. The application of "Internet+" information technology in the construction of informatization education management in colleges and universities has become a major part of informatization management way. The government departments formulated relevant strategies to strengthen the investment of funds in remote rural areas and improve the teaching facilities of information planning. However, as a non-compulsory education, the informatization process of student education has been lagging behind the pace of development of colleges and universities. For the purpose of sharing information resources, excellent teaching resources can relieve teachers' pressure. It can not only improve students' understanding ability, but also improve teaching efficiency. Stand at the forefront of university informatization, build the ecological foundation of teachers, with a view to promoting the rapid development of university informatization in China, so that more children can receive high-quality information education [9].

5.8 Strengthen students' awareness of network security

In the era of Internet information technology, a variety of cultural structure systems are needed. Many vocational students are confused by various network information, which affects their outlook on life, values and world outlook. Therefore, in order to improve this phenomenon, relevant leaders should be aware of the importance of student management, and should adopt advanced management models and management precautions in the process of building smart campus, and carry out ideological education, focusing on strengthening students' awareness of network security and prevention ability [10].

6. CONCLUSION

In a word, the network technology has been developing and improving, the construction of smart campus has provided good conditions, the information construction of traditional vocational colleges has made outstanding achievements, and the intelligent technology has been maturing. In the process of building a smart campus, we should fully grasp various technologies. In combination with the imperfect information management system, the lack of campus network system, the lack of teaching guarantee mechanism, the lack of professional communication platform and the lack of advanced campus management methods, effective solutions are formulated to promote the better development of the school, and systematic analysis is carried out to analyze and solve problems, so as to give full play to the potential of smart campus and continuously improve the development level of higher vocational colleges.

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