Research on Information Construction of New Campus Based on Computer Intelligent Campus

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Abstract. Smart campus is a new concept of education in our country at this stage. Its emergence is the inevitable process of a nation's educational reform. In order to carry out the construction of intelligent campus with informatization in the new campus, we should explore it from the perspective of building a new information school on the basis of clarifying its connotation[1]. In order to carefully carry out the construction of intelligent new campus information, we need to consider three main levels. They are network infrastructure, data support platform and intelligent application services. In order to ensure the stable operation of the network information of the new campus, we should also consider the specific steps and safeguard measures in the construction process.

Keywords: Computer Intelligent Campus, New Campus

1. Introduction

Nowadays, the application of computer technology has been widely recognized. People from all walks of life have said that the application of computer can greatly help our society towards prosperity. At this stage, with the emergence of virtualization and some new Internet technologies in the field of education, many schools are carrying out the construction of efficient smart campus[2]. In fact, smart campus refers to the construction mode of intelligent teaching, scientific research, management service and major decision-making.

This information construction mode can promote the innovation of talent training mode. According to the relevant identification of educators, they found that the construction of smart campus plays a significant role in the informatization reform of new campus. Compared with the old campus, the information-based education reform in the new campus is easier and more casual. According to the literature review, we found that many schools have initially realized the construction of smart campus.
However, they still have various problems. These problems are difficult to meet the growing learning needs of teachers and students.

2. The specific meaning of smart campus

2.1. Precise definition

As a new form of campus information. The concept of smart campus is a view of educational reform put forward by foreign scholars in recent years. Therefore, until now, it has not a completely unified definition standard. Different scholars in different countries and regions have different understanding of it. According to a large number of literature review, we can not determine its main definition point.

2.2. Cognition of three fields

Generally speaking, there are three cognitive perspectives. First, Internet of things technology experts believe that smart campus is an information application mode based on the Internet of things. Second, educational technologists believe that it is based on the new technology to build a resource exclusive teaching environment reform. Third, the experts of information construction believe that it is a comprehensive and advanced technology, which can realize the interconnection and more convenient service of education reform means.

2.3. Comprehensive meaning

After comprehensive reference to the views of various fields, we can think that smart campus is a diversified network technology using Internet of things, cloud computing and virtualization technology. It can organize the scattered information system and information resources within the school into a highly centralized organic whole. It can realize the functions of comprehensive perception, seamless network connection, open learning and personalized service between teachers and students.

3. The goal of information construction of new campus based on computer

3.1. Basic goals

I think the information construction of new campus should aim at the direction of smart campus accurately. Through the construction of a complete information infrastructure, application system and information resources to promote the combination of information technology and school business. We need to ensure that the new campus can realize an open and interactive online research platform for learning and innovation (see Table 1).

| Table 1. Research on three main levels of informatization construction of new campus based on computer intelligent campus |
|---------------------------------|---------------------------------|---------------------------------|
| Level of establishment | Main requirements |                     |
| Network infrastructure | The establishment of website and information portal of new campus |
Data support platform | Information portal all data support the establishment of the main platform and feedback system
---|---
Intelligent application | Including public service and public resource management, all campus can realize the establishment of functional platform

3.2. Future goals

First of all, we should realize the construction of the new campus with the wisdom of the foundation. After that, through efficient business governance, green and healthy campus life and accurate personalized service, the new campus will be built into a national famous university. We should fully show the strategy and means of talent training in the new campus through the construction of informatization.

4. Content of information construction of new campus based on computer smart campus

According to the specific meaning of the smart campus mentioned above and the specific functional requirements of the new campus, we can first design the structure of the logical framework of the informatization of the new campus. The construction of network facilities, data support platform and smart application services are three application levels that cannot be lacked.

4.1. Construction of multi service and extensive computer network infrastructure

The construction of network infrastructure can include different kinds of network characteristics. Computer network, Internet of things, telephone network and radio and television network can be used as the main logical means. The application of computer network can carry the business of different stages. External means can be completed by accessing the Internet, and internal means include wired connection and wireless connection. Through the above computer network connection, the school network can cover the office area, teaching area, dormitory area and family area. In the process of military training for new students, the external network can be connected to the comprehensive information network of military training[3]. The school can also design its own unique military exercise website according to this network means. In addition, the computer network can also be used for logistics services, restaurant services, library services and the collection of water and electricity charges (see Figure 1).
4.2. The use of telephone networks and radio and television networks

If the new campus wants to build a fixed telephone and mobile phone network system. Then, the use of the telephone network is essential. The fixed telephone network can cover all the construction facilities and key public service areas of the new campus. The mobile phone network can realize the cooperation between itself and the school operators. In this way, the signal stability of outdoor area and main building can be ensured. The radio and television network of the new campus can be divided into indoor and outdoor parts. Broadcast signal can be used to play background music and campus culture propaganda. It can also cooperate with the fire system to carry out appropriate fire drill measures. In addition, the cable TV system can receive programs from the local cable TV network. It can provide entertainment for employees and students on campus.

4.3. Establishment of data center based on Cloud Computing

The establishment of cloud computing data center is the main data platform to support the effective operation of smart campus. It can realize the integration of basic data, business management and teaching resources of the whole school. It can also make full use of virtualization technology for flexible control and reasonable allocation of information resources. In fact, the construction of the data center in the new campus should strictly abide by the relevant provisions of the national information network.

5. Application platform of new campus information construction based on computer smart campus

In fact, the information construction of the new campus aims to improve the quality of teaching, scientific research, management and life. The realization of their service functions can not be separated from the stable operation of rich functions and intelligent funny information application system. Therefore, I think the construction of smart campus application platform should run through the construction cycle of new campus. In addition, it also needs continuous improvement and innovative operation.

5.1. Construction of teaching service system
The construction of teaching service system in the new campus can support the whole process of teaching informatization. It mainly includes multimedia teaching, network teaching and book service. Multimedia teaching can integrate computer, projector and camera into a modern teaching environment. Network teaching system can provide teachers with online lesson preparation, online teaching and remote tutoring. The book service can provide the online library's book borrowing inquiry and book information inquiry.

5.2. Construction of scientific research support system

Scientific research support system can improve the level of scientific research management and collaborative innovation ability. They mainly include scientific research project application system, scientific research project management system and scientific research cooperation platform. The application system of scientific research projects can provide the declaration activities of scientific research projects. Scientific research project management can realize the process management of the project and the promotion of achievements[4]. Research collaboration platform mainly provides a platform for researchers to research collaborative innovation. Through the network system of smart campus, it can cooperate with other universities at home and abroad.

5.3. Construction of public management service system

In order to create an intelligent, convenient and green and healthy campus living environment. It mainly includes campus card service, building management system, intelligent security system and energy management system. All in one card service can provide users with comprehensive application services such as consumption settlement and identification[5]. Students can query their own information through the network system of all-in-one card. Building management system can realize the unified management of power distribution, lighting, air conditioning, ventilation and monitoring system. Security services can ensure the safety of the campus. Energy management system can achieve the overall goal of energy conservation, efficiency and environmental protection.

6. Conclusion

At present, the development of education informatization and the improvement of application level is an important part of the core competition of schools. The transformation from digital campus to smart campus is the inevitable embodiment of education reform[6]. On this basis, the effect of informatization construction of new campus based on computer smart campus is very significant. Compared with the information reform of the old campus, the construction of smart campus in the new campus can be more successful.

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