

Original Paper

Analysis of Intelligent Campus Construction in 2.0 Era of Educational Informatization

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Abstract

The construction of university informatization in China has already entered the 2.0 era. It requires universities to explore a new way of thinking when strengthening campus construction. At present, colleges and universities have found a new construction direction of “smart campus construction”. On the basis of drawing lessons from the construction experience of “smart campus” pilot schools, they are gradually improving the construction method of smart campus. The achievements of some colleges and universities are not ideal. This affects the actual quality of smart campus construction. Therefore, colleges and universities should take educational informationization 2.0 as the basic guidance when embarking on the innovative development path of intelligent education. The bright future of the smart campus construction will be revealed by exploring the smart campus construction methods that meet the requirements of The Times. This provides sufficient practical reference for the innovation and development of intelligent education in colleges and universities.

Keywords

universities, education informatization, smart campus, construction method

The Education Informationization 2.0 Action Plan issued by the Ministry of Education clearly puts forward the action of innovation and development of smart education. It caters to the needs of educational development in the “smart era” and advocates the colleges and universities to promote the construction of smart campus. This provides strong support for the implementation of innovative development of smart education. At present, educational informationization has begun from the original “point” to “surface” in an all-round way. It makes education more advanced and the distribution of educational resources more balanced.

In order to give full play to the advantages of smart education and improve the teaching level supported by smart education, universities need to strengthen the construction of smart campus. This makes the construction of smart campus go hand in hand with the new curriculum reform.

1. The Arrival of the 2.0 Era of Educational Informatization

After the 19th National Party Congress, China entered the era of educational informatization 2.0. The names and new requirements of educational development are different between the era of educational informatization 1.0 and the era of educational informatization 2.0. The educational development concept and educational construction mode in the 2.0 era of educational informatization have been further developed. It has gone through the stage of “preliminary exploration” and entered the stage of “promoting implementation”. China has formulated the Action Plan of Education Informationization 2.0 and taken a series of measures. This promotes the implementation of the action plan to “pave the way” for the modernization of education, promote the new era of education on a new journey and improve the development of smart education.

2. The Construction of Smart Campus Came into Being

Education is a systematic moral and political project. How to improve the level of education and cultivate high quality talents has always been the focus of educators' thinking. The traditional educational content, educational method and educational technology can not meet the needs of educational development in the current era, and even hinder the healthy development of education in the new era. Teachers should cultivate talents of all subjects that meet the needs of social development and the development of The Times. This makes education highlight the characteristics of the new era. Therefore, the current and future development direction of education is “educational informatization”. It requires educators to make full use of various emerging information technologies to carry out innovative teaching. In order to promote the development of educational informatization, colleges and universities require teachers to have good Internet thinking and realize the organic integration of education and information technology. Colleges and universities should reform the outdated concept of education construction, introduce the concept of smart campus construction with the characteristics of The Times and advanced nature, and clarify the norms and standards of smart campus construction in the new period. This provides the idea guidance function for the deepening development of educational informatization. At the same time, colleges and universities should conscientiously carry out the Action Plan of Educational Informationization 2.0. Through different ways, smart education innovation and development actions will be implemented. For the future education, Tao Xingzhi once put forward an idea:

“By liberating students’ mind, hands, feet, space and time, students can fully get a free life. They get a real education from living in freedom.” In fact, this educational assumption coincides with the wisdom education thought to some extent. In view of the current trend of the development of educational informatization, the educational assumption put forward by Mr. Tao Xingzhi has obvious predictability.

3. Difficulties in the Construction of Smart Campus in Colleges and Universities

Smart campus is actually evolved from digital campus in the era of “Internet +”. It is a campus with more powerful data analysis capabilities. Wisdom is embodied in campus operation, management, service, service expansion and other aspects. However, there are still many difficulties in the construction of smart campus.

3.1 The Efficiency of Information Integration and Transmission Is Limited

The intelligent education platform constructed by colleges and universities is not optimized enough, which leads to the scattered information received by some data platforms. It failed to integrate them organically in time. The information transmission efficiency of some data platforms is not high enough, which leads to the defects in the information integration and transmission mechanism of the current smart campus data platform in colleges and universities. There is still a certain gap between this and the standard requirements of the expected free flow of information, free interaction and efficient transmission. In order to make the smart campus more closely connected with the outside world, and make it create greater value space in information sharing, information transmission and other aspects, colleges and universities need to accelerate the pace of smart campus construction to achieve real smart education.

3.2 The Information and Technology Standard System Needs to Be Improved

In the process of promoting the construction of smart campus, a sound information and technology standard system should be constructed. This provides a standardized information technology standard for the construction of smart campus. However, the development of smart campus in colleges and universities is not mature enough. One important reason is that the system of information and technology standards is not perfect. For example, some universities pay more attention to the construction of “operation and service system” when constructing the information and technology standard system. It neglects the construction of “information and network security system”. However, the problem of information and network security will affect the quality of smart campus construction. Colleges and universities should actively improve the information and technology standard system.

3.3 The Intelligent Education System in Colleges and Universities Is Obviously Deficient

The fundamental reason for universities to promote the construction of smart campus is to promote the innovative development of smart education. The direct influencing factors of

innovation and development of intelligent education are intelligent education level, intelligent education system and intelligent education method. In the current construction of smart campus, the construction of intelligent education system occupies an important position. Because the construction of smart campus is not mature enough, the construction and application of smart education system are obviously insufficient. Colleges and universities should put the lack of intelligent education system in an important position. By looking for solutions, the intelligent education system is optimized and perfected.

4. The Basic Structure and Morphological Advantages of Intelligent Campus Information Service Platform

4.1 Data Layer Structure

In the intelligent university information service platform, all kinds of data information are concentrated together. Therefore, it is necessary to use relevant processing mechanism to process these information data online. By endowing the information data features such as individuation and group, the corresponding virtual image is constructed to form an information space with multi-dimensional characteristics.

4.2 System Layer Structure

Intelligent university information service platform includes subsystems such as operating system. At the same time, hardware also includes the central server and terminal distributed equipment. This role is to connect and support the various system levels. Therefore, the system layer is the key carrier of intelligent campus software.

4.3 Network Layer Structure

The main function of the network layer structure is to be responsible for information transmission, including the network structure that implements precise positioning for people and things, and the Internet of things that provides support for the information and data transmission process in various sensors. In addition, the traditional campus information service platform is basically passive data collection by administrators and users. Today's intelligent campus information service platform relies on the Internet of things technology to collect data and information. Through automated composition, large amounts of data and information are used to construct different activity scenarios. Data not only has the characteristics of fast transmission speed and short update cycle. At the same time, it can also eliminate abnormal data. It can also serve as an early warning. From the perspective of human operation, it can effectively shorten the business process time as long as it is reviewed at the necessary time, which fundamentally improves the business efficiency.

5. Conclusion

In a word, universities are in an important stage of transition from digital campus to smart campus. In order to speed up the construction of smart campus, colleges and universities should follow the requirements of “Education Informatization 2.0 Action Plan” for smart campus. By following the pace of smart campus innovation and development action, the educational value of smart education is fully affirmed, and innovative methods of smart campus construction are constantly explored. Colleges and universities should also examine the current problems facing the construction of smart campus. By taking targeted countermeasures, it chooses the right road of smart campus construction. This enables colleges and universities to truly promote the innovative development of smart education in the smart campus environment.

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