Research on the Problems and Countermeasures of Higher Education Management Informatization Development in the Computer Internet Era

Chengyan Wei¹,*, Lihua Zhong¹

¹Guangzhou College of Technology and Business, Guangdong, China, 510850

*Corresponding author e-mail: weichengyan@gzgs.edu.cn

Abstract. The construction of local high-level universities is an important part of the comprehensive reform of higher education in China. With the coming of the computer "Internet +" era, major strategic tasks such as cloud computing, big data and new generation of artificial intelligence have been gradually laid out, which will further achieve the goal of educational modernization and the development of a powerful educational country. Promoting the development of education informatization in the Internet era has become the top priority in the development of national education. Based on the background of high-level universities, this paper first analyses the necessity of the educational informatization development. Then, this paper puts forward some problems. Finally, some suggestions are put forward [1].

Keywords: Computer Internet Age, Higher Education, Management Informatization

1. Introduction

In the Outline of the National Medium and Long Term Education Reform and Development Plan (2010-2020), it is pointed out that China should integrate the development of education informatization into the overall development strategy of the country, which will speed up the process of university education informatization construction. With the development of information technology, the construction of information platform has attracted great attention of colleges and universities. The construction of information platform will provide a good development platform for higher education, which will give teachers and students greater freedom [2, 3]. Informatization will not only innovate the teaching mode of universities, but also improve the utilization of learning resources. Higher education informationization construction will effectively expand the coverage of higher education, which will improve the quality of teaching in Colleges and universities. Therefore, we must speed up the process of information construction in Colleges and universities, which will improve the construction of information platform. By promoting the sustainable development of colleges and universities, we will improve the teaching quality of colleges and universities [4].
2. Informatization is the necessity of higher education management in the internet era

2.1. The inevitable requirements of the development of social informatization
The background of educational management informationization construction is the digital age, which is the requirement of the times and the characteristics of the times. With the progress of science and technology, especially computer technology and communication technology, human beings will enter the information society. Therefore, people’s way of life, thinking, working and educational management will change accordingly. Informatization is the trend of world development, which is the trend of national social development. The level of informatization has become an important index to measure the modernization and comprehensive national strength of a country. Education management informationization is an important part of social informationization, which is the soul of social informationization. The level of educational management informatization directly affects the smooth development of social informatization. With the society moving towards informatization, informatization of education management is the foundation and promoter. At the same time, with the development of education, we must keep up with the pace of social informatization. Through modern information technology, we will seize the good opportunity of the global information tide, which will actively carry out the construction of education management information. Therefore, we need to vigorously promote and strengthen the information construction of education management, which is the inevitable requirement of higher education management in the Internet era.

2.2. The only way to improve the management level of higher education
According to the statistics of the Ministry of Education, higher education has maintained the momentum of rapid growth, the average annual increase rate of enrollment is 26.9%. With the acceleration of popularization of higher education, college students’ teaching quality has become the focus of social attention. Higher education management informationization can maximize the use of educational resources information, which realizes the whole process of tracking and auditing of higher education. Through higher education management, teaching analysis and scientific decision-making, China actively explores the training system and mode of higher education, which will further improve the management means, management level and work efficiency of higher education. Therefore, we must strengthen the informationization construction of education management to promote the modernization of education. Through information technology, we can change the traditional education management mode, which is the inevitable trend of the development of higher education management. Therefore, informatization is the only way to improve the management level of higher education.

2.3. Important guarantee of internationalized competitiveness of higher education
Compared with developed countries, there is a considerable gap in the overall level of higher education informatization. However, China is already a member of WTO. In accordance with international rules and practices, Higher education gradually opens its market to the world, which is an important field of training high-level talents. Higher education is both a challenge and an opportunity. Higher education has caused the impact of the information technology revolution, which will lead to fierce competition in the internationalization of higher education. Facing the historical mission of higher education management in the new century, we must improve our international competitiveness, which is the problem that our higher education must face. Higher education must take measures, which will speed up the process of higher education management informatization.

3. The development of higher education management informatization
A total of 1000 questionnaires were issued, and 961 questionnaires were valid, with an effective rate of 96.1%. The specific analysis is as follows.
3.1. The design of teaching management system is unreasonable
At present, many colleges and universities do not have R&D capabilities. Therefore, the teaching management system is basically commissioned by software companies to design research and development. However, the software company has not directly participated in the school specific educational administration management, which is difficult to meet the special requirements of the teaching management mode of colleges and universities. Therefore, there are many problems in the design of teaching management system. The main problems are the inconsistency between functions and actual requirements and too many windows affect normal functionality, accounting for 78.1% and 63.9% respectively. The results are shown in Figure 1.

![Figure 1. The unreasonable design of teaching management system.](image)

3.2. Insufficient information-based personnel in educational affairs management
The informationization of educational affairs management needs the cooperation of teaching staff and managers. In practice, teaching management workers are the most direct operators and executors. However, these information technology level is generally not high, which can't meet the needs of work information reform. The main problems are lack of teachers’ technical quality and imperfect governance system, accounting for 63.9% and 52.7% respectively. The results are shown in Figure 2.

![Figure 2. Insufficient information-based personnel in educational affairs management.](image)

4. The countermeasure of improving educational management informatization development
4.1. Building a scientific and perfect management information system
On the one hand, we should develop and design an educational administration system suitable for ourselves according to the nature of the discipline and the characteristics of running a school. Universities can cooperate with software companies in research and development. Depending on the technical strength of software companies, educational administrators can participate in research and development. By developing a scientific and reasonable educational administration management system, information technology can be well applied to the actual teaching management, which will improve the efficiency and level of teaching management. On the other hand, the module
development of educational administration management information system should be more perfect, which should involve all aspects of teaching management, such as teacher information system, student information system, teaching plan system, course arrangement system, course selection system, achievement system, student status system, practical teaching management, examination management system, textbook system, teaching evaluation system, course system, examination database system, graduation system. Student system, teaching resources system, charging system, etc. Each system should ensure the scientific and standard nature of data. Only through the collection, management and processing of teaching information can colleges and universities construct a perfect educational administration management information system.

4.2. Strengthen the construction of teachers
In the construction of informationization of educational administration, teaching administrators are the key factors for the success of informationization of educational administration. If we want to improve the informationization level of educational administration, we must improve the informationization ability of teaching management team. Teaching managers should not only have the ability to operate computers skillfully, but also have the ability of information management. Therefore, teaching managers should continue to learn. Through self-study, on-the-job training, further study and other forms, we can strengthen teachers’ learning. Schools should also pay attention to the construction of teaching management team. By strengthening the introduction of information professionals, colleges and universities can regularly organize teaching managers to carry out modern information technology training. By conducting expert lectures, seminars, visits and learning, we can enhance the information awareness of managers, which will improve the overall quality of teaching management team. Therefore, we need to strengthen the training of teachers’ information technology, which will improve their information application level and literacy.

5. Conclusion
With the rapid development of higher education in China, the reform of higher education management system is deepening day by day. The informationization construction of higher education management is doomed to be a long-term, multi-level, cross-platform and complex system engineering. In the computer Internet era, the construction of information technology must keep pace with the development of higher education. Through the combination of management system and management mode, we can find out the road of higher education management informatization construction suitable for our own characteristics.

Acknowledgment
Guangzhou College of Business and Technology 2018 School-level Quality Engineering Construction Project “Innovation in Brand Cultivation Work in Applied Talent Cultivation” (Project No.ZL20181111).

References
[1] Development strategy and path choice of educational informatization in Chinese universities [J]. Educational research, 2012, (4).
[2] Zhou Hongchun. The new development of informationization in higher education: informationization education [J]. Research on audio-visual education, 2012, (6).
[3] Xu Jian. Investigation and countermeasure research on the status quo of education informatization in Universities in Tibet [D]. University of Tibet, 2014.
[4] Jiang Yanhong. Research on the development strategy of educational informationization in Colleges and universities in Jiangsu province [D]. Jiangsu Normal University, 2012.