

Current Situation and Countermeasures of Informatization Construction of University Student Management in Big Data Era

Zhongming Liu¹, zhengwu Liu^{1,*}

Hunan Institute of Traffic Engineering, Hengyang, 421001, China

*Corresponding Author

Keywords: Informatization, Big data, Student management

Abstract: Accurately analyze and evaluate the current situation and existing problems of college student management informatization, actively explore new methods of college student management informatization in the era of big data, and promote the standardization, institutionalization, and scientificization of college student management, which has important theoretical value and practical significance. For college teachers, how to use information technology platforms to manage students in the context of the era of big data is a topic that college teachers should consider. In order to further strengthen the research on strengthening the informatization construction of college students in the context of the big data era, we analyzed the current situation of the informatization construction of universities and proposed improvements. Only through the continuous development of society can we improve the information construction of college student management, strengthen the comprehensive integration of computer practice and theory, improve traditional teaching methods, keep pace with the times, promote college management, and improve the physical and mental health of students.

1. Introduction

With the advent of the big data era, information technology continues to permeate daily life. College students are a group with high literacy ability and strong ability to accept new things. At the same time, they also use the most advanced information technology. It can be said that the impact of information technology on college students is very important [1]. In today's era of big data, the development of Internet and computer technology is accelerating, and big data technology has become an indispensable part of modern people's daily life [2]. Basic work and study, or entertainment and leisure, all need the support of big data technology. In short, the concept of big data is to collect a lot of information. Its characteristics mainly include relatively large: data and very large data types. At the same time, with the application of information science and technology, information processing speed is very fast, big data has broad potential value, and the rate of return is surprisingly high [3]. Due to the relatively short time for university management to integrate into big data technology, continuous research is still needed for efficient collection of all kinds of information of the overall students [4]. At present, the enrollment scope and quantity of universities are expanding. Only by strengthening the informatization construction of university student management can we cope with the ever-changing social situation and cultivate diversified talents with comprehensive quality [5].

With the rapid development and progress of science and technology, people's thinking, work and lifestyle are undergoing subversive changes. The data age has brought greater convenience to people's production and life, and people can grasp a lot of information without going out. In addition to providing more convenient conditions for the management of college students, it also poses new challenges [6]. With the help of mainstream communication and entertainment platform information, managers can follow hot campus events in real time, understand students' thinking dynamics, and continuously strengthen students' normal behavior training [7]. For college teachers, how to use information technology platforms to manage students in the context of the era of big data is a question that college teachers should consider. Therefore, it is very important to study the

management information of college students in the era of big data [8]. The level of use of big data in the establishment of college student management information can greatly reflect the ability and quality of college student management [9]. Therefore, with the gradual dissemination of big data, college student management has entered a new stage of informatization. In order to further strengthen the research on strengthening the informatization construction of college students under the background of the big data era, we analyzed the status quo of the informatization construction of universities and proposed improvements.

2. Opportunities and Challenges of University Student Management in the Era of “Big Data”

2.1 Opportunities for the Management of University Students

College student management needs not only experience guidance, but also scientific guidance. If college student management can analyze problems and make decisions through data more effectively, the work efficiency will be greatly improved. Although some universities have made a series of preparations for the enrollment expansion, and increased the construction of university counselors and other management teams, the growth level of managers is far from meeting the needs of university student management. In the era of big data, massive data resources can be classified and sorted, and seemingly irrelevant data in daily management can become an effective basis for management. The arrival of the era of big data not only brings great convenience to the management of university students, but also makes it face great pressure and challenge, which makes the management of university more and more difficult. This requires that the mode of university student management can keep pace with the times, so as to grasp the ideological changes of students and adapt to their lifestyles. Universities can make full use of students' personal information, academic achievements, personality characteristics, community activities, scholarships, social platforms, social practice and other network resources to locate and connect various data sources, realize data collection, transmission and convergence, and achieve targeted student management.

2.2 Problems in the Management of College Students

The main task of student management is to deal with a large amount of basic information generated in the whole management service process. Traditional student management relies on the original method to collect, count and transmit this information manually, which leads to many repetitive tasks, low efficiency and poor timeliness, which leads the student management workers to focus on some repetitive tasks. Traditional university management mainly relies on managers to come around students to make a thorough investigation of their situation, and then constantly improve the contents and management methods of student management system according to their own management experience, and the adjusted system is transmitted to the school department leaders, and the management content is implemented with the help of professional counselors. Although some progress has been made in university informatization construction, all kinds of information systems are usually not connected with each other, the data interface is not smooth, and there is no comprehensive data platform for resource sharing, which leads to the lack of interoperability of all kinds of information and the lack of platform foundation for the development of big data. The existing technical means of universities can only process and analyze the information data with a small number, similar categories and formed structure, but can not collect, store, analyze and visualize the results of big data in the modern sense. The data analysis technology has not been used yet, and it is not even understood by most student management workers, and it does not provide support for the decision-making of university student management [10]. With the application of big data technology, some management still adopt relatively inefficient traditional management mode, which is not conducive to establishing good contact with students and can not ensure the quality of management work. With the application of big data technology, the requirements for the corresponding scientific and technological information managers should be further increased, which requires not only their superb data analysis ability, but also their proficient

teaching business.

3. Problems in the Management of College Students

3.1 Promote the Implementation of the Actual Effect of Student Service

When managing students efficiently, the importance of family education should not be ignored. Under the background of big data information age, schools can choose a variety of network platforms to communicate with parents, so that parents can know the actual situation of students in the fastest time. If a university wants to make the student management work on the track of regularization, standardization and systematization, it is necessary to change the ideological consciousness and thinking concept of university administrators, so that they can pay more attention to big data and use data information to analyze the student management work. The common information management mode can be described as a “catalytic reaction”, as shown in Figure 1.

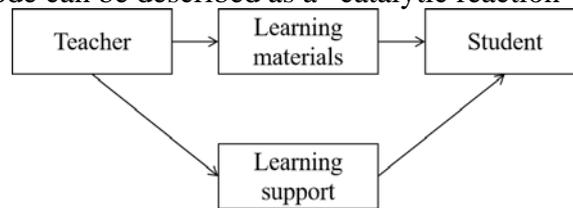


Fig.1 The Catalytic Reaction Mode of Information Management

On the one hand, universities can develop students' information system service platform and build a high-tech student management system, so as to facilitate the management of students and track their studies accurately [11]. On the other hand, it is necessary to increase the integration between network resources and efficient information management platform, so as to avoid the incompatibility of several systems in university network platform, resulting in waste of resources. In the face of the increasing difficulty in managing college students, as management workers, we must start from the students' own characteristics. Students are the main body of management work. Only by further improving the comprehensive quality of college students in the process of informatization construction can they promote their healthy development of body and mind.

3.2 Improve the Level of Information Technology

Under the background of informationization, the regional concept no longer exists, and college students can come into contact with different ideological cultures by using the information platform, and form their own values, outlook on life and world outlook under the fierce collision of different ideological cultures. The development of network is not only a sign of social progress, but also a need of university work. Therefore, in the management of college students, it is necessary to establish a corresponding network information management platform, so that college students can participate in it, thus realizing the importance of informationization. The information management system and supervision mechanism must be consistent with the students' interests, and can't violate the privacy rights of college students, so as to get everyone's support, make the system implement smoothly, and lay the foundation for the high efficiency of student management. The structure diagram of the university student management system is shown in Figure 2.

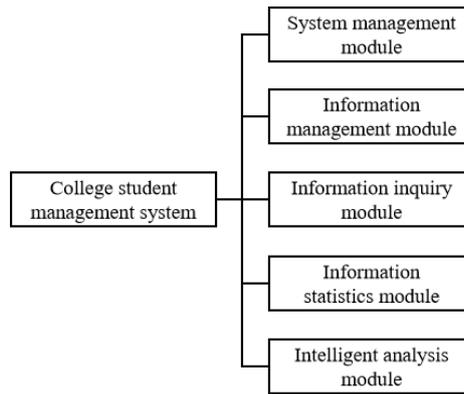


Fig.2 System Structure

After having sufficient information resources with high quality, it is necessary to carry out scientific and effective practice and utilization of them, and mine effective information from these big data, which will be transformed into the management ability and management methods of university students. For university student managers, in order to strengthen the use of various information resources and improve the timeliness of management work, they should enhance their informatization application ability and strengthen their study, research and understanding of informatization.

4. Conclusions

In the development of the big data era, the construction of college student management information will improve the efficiency of college students' daily management and ensure the effective use of college student resources. The rapid development of information technology and the advent of the era of big data have brought unprecedented difficulties to the management of college students. Only by making full use of the information technology platform and strengthening the introduction and innovation of information technology can university management make good improvements in the context of the era of big data. In the data environment, the research of informatization education mode is a complex system engineering, and informatization education is a dynamic process, and its development is affected by many factors. Therefore, the execution path of the information education model must keep pace with the times. The emergence of various forms of data information in the Internet age has not only brought great convenience to the management of college students, but also put forward higher standards for the development of universities. With the gradual popularization of its big data application, big data technology will inject very strong power into the modernization and informatization construction of universities in China, and also add powerful technical means and effective ways to the informatization level of university student management.

5. Acknowledgment

Scientific research projects in 2019 (HUMANITIES AND SOCIAL SCIENCES): Difficulties and Countermeasures of Transformation of Qindong Cultural Resources to Cultural Industry (17HX86).

References

- [1] Tang Xinmei, Qin Kaixian. Research and practice of student management information innovation in the era of big data[J]. Science and Technology Innovation Herald, 2017, 426(30):206-207.
- [2] Xu Wenxun. The current situation and countermeasures of the information construction of college student management in the era of big data[J]. Journal of Mianyang Normal University, 2016,

35(01):53-56.

- [3] Cai Zhiyong. Information Reconstruction of Student Management Work in Higher Vocational Colleges from the Perspective of Big Data[J]. Culture and Education Materials, 2019, 819(09):128-129.
- [4] Wang Shuogang, Ju Weibo, Wang Yining, et al. The impact of big data and cloud computing technology on the construction of college student management information[J]. China Management Information Technology, 2018, 021(003):211-213.
- [5] Wang Qian. Research on the status quo of informatization construction of college student management in the era of big data[J]. Journal of Liaoning Agricultural Vocational and Technical College, 2018, 98(02):57-59.
- [6] Wang Guoxin. Research on student management informatization in higher vocational colleges under the background of big data[J]. Education Modernization, 2018, 5(12):252-253.
- [7] Hao Jianjun. Research on the Informationization of University Student Management under the Background of Big Data[J]. Information and Computer (Theoretical Edition), 2020, .448(6):205-206.
- [8] Li Xueying. The way to build college student management information in the era of big data[J]. Modern Communication, 2019, 498(4):192-193.
- [9] Shao Yuxia. Interpretation of the status quo and countermeasures of the informatization construction of college student management in the era of big data[J]. Electronic World, 2019, 581(23):66-67.
- [10] Wang Hao. The application of big data thinking in the information management of college students[J]. Think Tank Times, 2019, 183(15):134+136.
- [11] Hong Xiaoying. Discussion on student management informationization of higher vocational colleges under the background of big data[J]. Education Informationization Forum, 2019, 3(11):218-219.