

Research on student management under the background of big data

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Abstract: Big data is entering people's study, life and work with the continuous development of science and technology in China. College students are well-educated and their ideas are also very active, which is determined by the management mode. The management mode have to adapt to the development of society and make college students deeply affected by the era of big data. This paper analyzes the challenges of student management in the era of big data and the countermeasures of student management in the era of big data.

Keywords: Big data; Student management; Institutions of higher learning

1. Introduction

It is necessary to keep up with the pace of The Times and adopt practical and effective big data technology at present, which not only makes teaching methods more innovative, but also reduces the time of teachers' lectures and enables students to learn a lot of knowledge through big data. Big data has entered the stage of rapid development, and its status has changed a lot compared with the past, which is a social trend. College students, as the most promising activists in the whole society, will be affected by big data both in their studies and in their lives^[1]. Therefore, in order to manage students more conveniently and quickly, colleges and universities can invest in the use of big data, which can quickly improve the work efficiency of managers, but also have a positive impact on students' behaviors and ideas. There are also many problems in using big data to manage students. However, when encountering problems, we should grasp the nettle and solve them instead of avoiding them, which is also an important content of student management. Education reform and innovation is still an important content that can not be ignored, which is not only related to students themselves, but also related to the sustainable development of college education. Therefore, universities can make changes by adding big data to their existing teaching management to promote talent cultivation. Colleges management should make a change with the pace of social development^[2]. Under the background of big data era, they should enhance students' awareness of big data, improve staff's big data skills, and establish a sound system.

2. Opportunities brought by big data to the management of college students

2.1. The definition of big data

In the rapid development of science and technology in the 21st century, every country will someone big data as a research topic, and they each have different research conclusion, and the author thinks that McKinsey research conclusions the most scientific, so the author will based on his definition of big data to make in-depth analysis and research on the data. In McKinsey's view, big data is actually an information database with advantages in information acquisition, information storage, information management, information analysis and other aspects, whose main role is to analyze the trend of various market trends. Its application has a great significance of all aspects of society[3].

2.2. The particularity of big data

The survey results show that big data has the following four characteristics compared with traditional information collection tools. First, large volume of data. And in the coming period of time these paper materials will be a lot of growth. Second, there are many kinds of data. There are more and more information sources that provide information for human beings, and the ways of displaying

information are becoming more and more diverse. In particular, before the big data development, books and images is an important medium in transmission. Now, with the continuous development of big data , audio and video can be used as the carrier of information transmission, how to find a balance between different information carrier, making them maximize its role in information transmission is a problem urgently to be solved in today's society[4]. Third, the value of information is low. Now, people can receive a large amount of information every minute and every second. It is a great challenge for people to find the information they need from the massive information. Value density is always inversely proportional to the amount of data. Finding the needed information from massive data is also an unprecedented challenge in the era of big data. Fourth, the speed of information development is fast. Some data information is valuable to people only for a certain period of time, after which the information implied in the data will become of low or no value. In this case, efficient methods must be used to process the information data in order to obtain useful information from it in a timely manner.

3. The significance of college student management in the era of big data

3.1. It is conducive to enhancing the pertinence of management

Scientific prediction, as one of the core functions of big data, mainly analyzes and mines massive data information through mathematical algorithms to predict the possibility of events. In other words, today's big data technology is becoming more and more mature, and computer systems have been used in various fields, and certain results have been achieved[5]. Even in some fields, big data can replace human judgment behavior. Therefore, the application of big data technology can collect, analyze and process all kinds of information data according to the actual situation of students, including students' study, life, social practice and other aspects. Can objectively analyze students' psychology and behavior, so as to scientifically predict students' future behavior tendency. At the same time, on the premise of this, the relevant departments of colleges and universities can prospectively strengthen management measures, ensure the pertinence of management, constantly strengthen the service level, and then optimize and reform their own management system to better achieve the management objectives.

3.2. Ensure the scientific nature of student management and decision-making

Management decision is a key part, which directly affects students' study, life, employment, the formation of students' values, and even has a direct connection with the overall educational effect of colleges and universities. Therefore, for the management of college students, scientific management decision is one of the important propositions, has a decisive role. It can not only help the management decision maker to clearly understand the current situation of students, but also help them make reasonable management measures. Under scientific management decision-making, can realize the structural and structural data analysis work, students behaviors and looking for excavation, and provide new Angle of view and the basis for the management of the students, and help decision-makers change management way, solve the decision-making problem such as subjectivity, mandatory, empirical, highlight the rational characteristics of decision making, So as to truly realize the scientific management decision of college students.

3.3 .Objective evaluation of management effectiveness

In the management of college students, effect evaluation is a key link. It can be said that scientific management decisions, high quality management content and reasonable management methods, together with the realization of management objectives, are based on the evaluation mechanism of management effect. But because the student management is a complex project, which has strong cyclical, repeatability, so in the management of the whole management effect evaluation, not only belongs to the stage on a management summary, is a new beginning management phase, this is helpful to improve management decisions and plans for the future work. So from big data era background, more conducive to enhance to evaluate the effect of objective and scientific, in order to use big data technologies, analysis the students some of the structured and unstructured data, on the basis of the quantitative evaluation standard, test the integrity of the student management system, ultimately for the college students management to provide real and reliable data to support[6].

4. The countermeasures of college students management under the background of big Data

4.1. Building a modern management team

The development of new network technology is very rapid, Internet thinking has entered the society, People's Daily life. Therefore, scientific and technology have begun to attach importance to the construction of information and intelligence in all walks of life. Colleges and universities mainly transport high-end talents for various fields. It is necessary to strengthen the intelligent management of students through information technology and network platform. However, if we want to realize the data construction, we need the support of a professional and innovative management team[7]. Therefore, it is necessary to pay attention to the construction of management team, inject new blood into the management of college students, promote management personnel to have modern technical level, so as to strengthen the ability of management personnel to absorb and accept the idea of big data.

4.2. Regular training of management staff

The traditional way of working for student management has been unable to adapt to the pace of development of network. Therefore, in order to improve the management level, it is necessary to improve the computer operation level of managers. Therefore need to organize training activities, to management for mastering the operation of the computer technology, can more properly and effectively deal with a large number of cumbersome and complex data information, resource integration, data modeling and analysis, operation, etc., and to explore the optimal treatment of big data application technology, and further realize the student management mode reform and innovation. The management team should pay attention to the recruitment of professional talents in computer, big data statistical analysis, organization and management, and organize various professional and technical training activities irregularly in daily work, so as to continuously strengthen the professional and technical level of the management personnel and ensure the improvement of their teamwork consciousness and ability.

4.3. Build an online database platform

We should give full play to the advantages of big data technology, build online education and database platform, so as to realize effective data sharing. It can be said that with the continuous development of Internet information technology and the increasing formation of the consciousness of social resources sharing, the Internet thinking of sharing information resources has been widely recognized by all sectors of society, making the construction of various network resources sharing platforms and websites is no longer a new thing. Therefore, college students under the age of big data management work, need to use a network share, or directly on the network, continuously improve the data sharing platform, the clock in class, online teaching records, identity verification, teaching evaluation system and so on information, according to certain entry template specification, so that teachers and students to consult at any time, Understand the students' class situation, learning dynamics, learning results. At the same time, it also helps to supervise and remind students. In addition, students can repeatedly watch classroom teaching videos, teaching plans and materials to further consolidate and master classroom learning knowledge, which is of great help to improve students' learning ability and effectiveness. In addition, the construction of the big data sharing platform also provides a good communication platform for schools, teachers and students and parents, so that they can communicate with each other even across the screen, which is helpful to establish a harmonious relationship between home, school and teachers and students.

4.4 .Standardized management of big data information

In the era of big data, in order to effectively solve the student's information security hidden danger, to strengthen the information of student management work standardization, in order to substitute teachers and school leaders, teachers on students' attendance, strict examination, and grasp the students in class, in order to enhance the accuracy of the information collection and input, authenticity, As far as possible to reduce the background staff in the data analysis, integration of the work burden, further enhance the computer background data collation of scientific, integrity, so as to ensure that the management level and effect of college students to improve. In addition, some structured data, or semi-structured or even unstructured data, are an effective resource for student management. Colleges should pay more attention to data management and play its role in order to standardize the management system of students, especially the perfection of the safety system. so to speak, standardization of data

and information management mode, is beneficial to the construction of teaching resources sharing platform of website information security system, make firewall technology upgrades, upgrade, also can to a great extent, to strengthen students registered in site of personal data security index, in case of personal privacy information, photos and valid documents leaked. To avoid the occurrence of network violence, infringement to protect the personal and property safety of college students. At the same time, colleges should also build special data security management personnel to ensure the long-term and safe storage of student data, which can not only solve the emergence of college students' information security risks, but also promote the efficient development. To sum up, it not only brings new opportunities for the management of college students, but also makes the management of college students face new challenges. Through the management of colleges and universities in the student management into big data technology, build large data sharing platform for the students, and effectively integrate and analyze the students' learning situation, dynamic learning and psychological state, real-time monitoring, check the students' attendance, test the integrity of the student management system, in order to provide reliable data for the future of the student management work, So as to realize the pertinence and effectiveness of the management of college students.

5. Conclusion

In the era of the rapid development of big data, using big data to carry out information management of students has become an inevitable trend of college management reform, so that the student management of colleges and universities with stronger pertinency and practicability. It should be emphasized that the use of information provided by big data is a challenge for college administrators who are accustomed to traditional management methods. Administrators must constantly improve their comprehensive quality and professional level to better apply big data to student management.

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