

Management Measures of College Education in the Era of Big Data

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Abstract: *In recent years, with the development of information technology in our country, people's production and lifestyle have been changed to a large extent, and the era of big data is gradually coming. Colleges are the main positions for cultivating high-level talents in our country, and they are also an important guarantee for our country's cutting-edge talents. However, in the era of big data, most colleges in our country have certain limitations in education management, which will directly affect the educational level of colleges and hinder the further development of colleges. Therefore, this paper takes the era of big data as the background, expounds the common problems in education management in our country's colleges, and deeply explores the effective strategies to improve the level of education management in colleges, hoping to provide some reference for the majority of colleges.*

Keywords: *the era of big data; management of college education; information and data; informationization management*

1. Introduction

With the rapid development of Internet information technology, big data has become an indispensable part of people's life, study and work, which has brought a lot of convenience to people's production and life, and has also greatly promoted the development of education of colleges in our country. The majority of colleges should actively adapt to the development of the times, keep up with the pace of the era of big data, make rational use of big data, effectively innovate the traditional education management model, and provide better educational services for the society, which should also become the main research topic of colleges in our country.

2. The concept of big data

Big data mainly refers to the information database generated in order to better solve the problem of storing a large amount of information under the background that traditional databases cannot be processed in a timely and effective manner. In the era of big data, data has become a crucial factor of production in the process of social development in our country, which has also brought new opportunities for the development of our country's economy and education^[1]. The basic characteristics of big data mainly include the following points: First, the volume of data information is large. The data sources of big data are not only more extensive, but also the volume of its own information is also extremely large, and the data and information carriers are also more diverse; secondly, there are many types of data. There are also large differences in the format and encoding of different big data, and the types of data are complex and diverse; finally, the efficiency of data generation is high. With the support of information technology, big data has a high production efficiency, which is difficult to achieve by traditional data processing methods. In the era of big data, with its super high growth rate, big data has had a very important impact on people's daily life. At the same time, with the development of science and technology in China, people have more diverse ways of disseminating information, and the Internet has become the main carrier for transmitting information, and people's storage habits have undergone important changes under the influence of cloud storage.

3. The significance of using big data in college education management

In the era of big data, colleges in our country should fully realize the positive significance of big data, and organically combine big data with their own education management work. And it is also an inevitable trend of the future education development of colleges to effectively improve the level of education

management through big data.

3.1 Injecting vitality into the traditional education management model

In the traditional management mode, the education management work of most colleges is relatively simple. The guidance and inspiration of students are mainly completed through the explanation of knowledge, and they do not pay attention to the communication with students in the classroom, which leads to the greater distance between teachers and students, and makes the various needs of students to meet difficultly. In the era of big data, a number of Internet education platforms have emerged, such as online course resource platforms, MOOCs education platforms, etc. These advanced digital education platforms have effectively enriched traditional education methods and completely freed traditional teaching from time and space constraints, which have kept the teaching efficiency and quality fully improved. So the classroom is no longer the only position for teaching in colleges^[2]. At the same time, big data can also conduct scientific analysis based on students' daily learning behavior and habits, summarize basic rules, help teachers discover problems in the current teaching model, and teachers can adjust their own teaching direction in time to make teaching management more scientific and targeted with the assistance of various information management systems.

3.2 Improving the information management level of colleges

In the era of big data, colleges should attach importance to the construction of informationization in education management, and rationally use big data analysis technology in the education management system, which can effectively improve the level of informationization management in colleges. At the same time, the management of library systems, such as scientific research systems and personnel systems, is inseparable from the support of big data. In addition, with the further development of science and technology in our country, Internet mobile terminals such as mobile phones and tablet computers have been widely popularized, and new media platforms such as WeChat and Tiktok have also become an important part of students' daily life, which can fully realize that the data has been investigated and analyzed. It can be seen that the integration of big data technology and college education management can fundamentally improve the level and efficiency of information management in colleges.

3.3 Improving the efficiency of academic exchanges in colleges

In the process of conducting scientific research and academic exchange activities in colleges, big data technology can play a very important role in it. It can effectively improve the efficiency of academic interaction and information transmission, and make the activities more efficient. In the era of big data, the most widely used and common big data technologies mainly include cloud computing technology and data technology. With the support of these technologies, cross-disciplinary resource sharing can be realized, the innovation of scientific research mode can be promoted, and more convenience can be provided for educational and academic exchanges. At the same time, as the main carrier of data sharing in the era of big data, the Internet can rely on its nearest search, intranet storage and other methods to integrate relevant data resources in a unified manner to provide reliable efficiency guarantees for data sharing.

3.4 Optimizing students' ideological and political education

Today, with the rapid development of information technology, the Internet has become an indispensable part of people's lives. The massive amount of information in the Internet can effectively meet people's different information needs. At the same time, relevant big data can also directly reflect students' current values and state of mind. Therefore, colleges should conscientiously combine the actual situation of students, make rational use of big data technology, improve the ideological education model, and fully expand the scope of education management work. This can effectively optimize students' ideological and political education and make ideological and political education more targeted.

4. Problems existing in the management of college education under the era of big data

4.1 Insufficient understanding of big data

At present, most colleges in our country have not deeply realized the importance of big data in

education management, and have lacked the corresponding awareness of big data management, resulting in very limited application of big data in college education management. At the same time, some colleges have relatively weak infrastructure and do not have the conditions to use big data technology, and data privacy security cannot be reliably guaranteed^[3]. It can be seen that there is still a long way to go in the application of big data in the education management work of colleges in our country. It is necessary to actively explore the effective combination path of big data and education management, and pay attention to the application of big data.

4.2 Lack of unified application standards of big data

In the era of big data, the educational management data of colleges and universities in my country is characterized by complex, diverse and multi-level features. The huge amount of information data brings greater difficulties to the information collection work, and the coverage of information will also increase accordingly. A large amount of information resources will be generated in Internet mobile terminals. At the same time, there is currently no unified set of big data application standards in colleges and universities in my country, which will lead to repeated collection, format differences, etc., which will reduce the collection efficiency and affect the subsequent application of big data.

4.3 Lacking scientific characters in the management model of big data

In the era of big data, the monopoly position of colleges in information production in the past has been shaken, and there are large differences in the information produced by different colleges, which also greatly increases the difficulty of information integration work, which gives serious challenges to application capabilities of big data in colleges. At the same time, in the education management work of colleges, the information acquisition methods and specific contents of various internal departments are not uniform, which hinders the application of big data in education management work, reduces management efficiency, and is not conducive to the comprehensive development of colleges. In addition, in the era of big data, many colleges have successively built corresponding data centers, but the management model lacks scientific and rational characters, resulting in occasional errors in data integration and waste of management resources.

4.4 Lack of big data application talents

In order to further improve the level of education management in colleges, colleges should flexibly apply big data and optimize the effect of education management through scientific information management and analysis methods. However, this requires managers to have a high professional level, not only to have a deep understanding of big data technology, but also to have certain big data application ability and education management ability. However, from the current point of view, most colleges in our country are seriously lacking relevant big data application talents, which leads to the fact that the development of big data and the application of education management in many colleges have been in their infancy, which makes it impossible to carry out in-depth research. At the same time, many computer majors in colleges do not offer special computer application courses, resulting in a shortage of school-based big data talents, making it difficult to combine big data and education management.

5. Exploration on the development of college education management under the background of big data era

5.1 Recognizing the positive impact of big data

In the era of big data, the relevant education administrators in colleges should first change from the ideological level, fully realize the role of big data in promoting education management, and strive to promote the integration of the two to fundamentally improve the level of educational services in colleges^[4]. At the same time, it is necessary to pay attention to the application of big data in daily teaching and research work. For example, in the school's book management system, big data technology can be used to collect information such as students' reading preferences and professional conditions, and conduct scientific analysis, to better meet the reading needs of students of different majors. In addition, on this basis, it can help students to formulate reading plans in line with their own development, and improve students' comprehensive literacy from a scientific perspective.

5.2 Unifying collection management standards of big data and establishing a platform of big data

In order to comprehensively strengthen the application of big data in college education management, colleges should build their own big data platform. Through the analysis, management and maintenance of the database, the information sharing efficiency of different departments can be effectively improved. To this end, colleges must first formulate unified big data collection and management standards, scientifically coordinate student management information and school teaching and research information, and conduct targeted collection according to corresponding collection standards to improve basic data. At the same time, colleges should also establish a scientific platform of big data. The platform should contain all information and data related to the school, such as professional distribution, specific courses, school functions, etc., to fully meet the information needs of teachers, students and parents. It is also necessary to build a reasonable feedback mechanism in the platform. When teachers and staff find that information is missing, they can provide online feedback to managers through the platform, which can effectively ensure the integrity of platform data and lay a good foundation for education management.

5.3 Strengthening the talent construction of big data

In order to strengthen the application of big data in education management in colleges, it is inseparable from the support of relevant professionals. Therefore, colleges should, on the basis of their own actual conditions, do a good job in building big data talents through various channels. For example, colleges can regularly carry out relevant training activities to train teaching staff in an all-round way from data development, data storage, data application, etc.; colleges can also establish good cooperative relations with local enterprises and regularly appoint excellent teaching staff to go deep into the enterprise to engage in big data technology work, so as to accumulate rich experience in big data management; at the same time, colleges should regularly hire industry experts or scholars or technical personnel with rich experience to hold lectures, to get close contact with teaching staff, and to provide professional guidance to the school's current big data system, so that the value of big data can be truly given full play to and big data can better serve education management.

6. Conclusion

To sum up, with the rapid development of information technology, our country has ushered in the era of big data. In the era of big data, people's production and lifestyle have been greatly changed, and at the same time, it has also brought infinite possibilities to our country's education. In order to improve the quality of education management in our country's colleges, we should actively integrate big data technology, and accelerate the further integration of the two by changing the thinking of managers, unifying big data collection and management standards, establishing a platform of big data on campus and strengthening the talent construction of big data, which is meant to promote the overall development of our country's educational undertakings.

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