Innovative thinking on college education management in a big data environment

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Abstract: In the era of rapid development of Internet communication technology, big data has quietly integrated into the fields of production, life and learning, bringing new changes and opportunities to the education management of colleges and universities. In the big data environment, how to keep up with the development trend of the times and promote the upgrading of education management from the perspective of innovation has become an important issue for colleges and universities to improve the level of education management. Based on the big data environment, this article briefly describes the impact of big data on education management concepts and decision-making, analyzes the problems of colleges and universities in education management system, big data awareness and information construction, and focuses on four parties: increasing capital investment, strengthening special training for talents, introducing advanced technology systems, and giving full play to the advantages of big data technology. We will discuss the reshaping of the working mechanism and implementation strategy of education management in colleges and universities.

Keywords: Big data environment; colleges and universities; education management; strategy

Forward

In the big data environment, the construction process of informatization in colleges and universities is accelerating day by day. In addition, many college students like online learning forms. Whether it is the life of teachers and students in colleges and universities or course management, it is full of a large amount of data information, such as management data, teaching data, scientific research data, logistics service data, etc. The data types are complex. With the trend of transformation and massization, education management urgently needs to embark on the road of transformation and development. In education management work, by establishing the awareness of big data, colleges and universities can break through traditional work ideas and models, combine the nature and types of different data, optimize the pattern of education management, adopt management technology in a targeted manner, make up for the shortcomings in traditional work, and improve the efficiency of education management. At the same time, innovation-driven is an important guide for the development of higher education. In order to improve the level of running schools and promote the high-quality development of higher education, colleges and universitiesIt is necessary for managers to focus on the student-oriented concept, pay attention to the social, development and learning differences of college students, and use big data to build a more accurate and comprehensive education management system to ensure the all-round development of students.

I. The impact of big data on the management of college education

1. Impact the traditional education management concept

In the big data environment, college students tend to live a network and learn digitally. The information source channels are increasingly diversified, and the amount of data information continues to grow, which affects the traditional education management concept of managers. The traditional management methods of colleges and universities are relatively rigid and relatively simple, and it is difficult to adapt to the development trend of new education. Therefore, college education managers need to analyze the functional characteristics of big data and actively change the educational concept and management thinking. Only in this way can we build a more humane, digital and modern education management system, fully understand the requirements of society for the development of higher education, and accurately collect teaching and student management information. Optimize the education management strategy. At the same time, in the big data environment, education managers can recognize the lagging and irrationality of previous working methods, and stand from the perspective of the application of big data technology and the needs of analysts to form a people-oriented education management concept.

2. Empowering education management decision-making innovation

In the environment of big data, many universities have accelerated the construction of digital campuses and smart campuses, providing material conditions for the innovation of education management. For example, many universities have introduced big data technology into the student registration and library system, using data mining, analysis and integration technology to improve the scientificity and accuracy of data services. At the same time, with the help of big data technology, college managers can collect education management information from different aspects, with the help of big data system, analyze data composition and sources, quantify various data results, and use these data to make education management decisions, open up new ideas and directions for education management, and further improve the management of colleges and universities. Level, service level and education level.

II. Problems of education management in colleges and universities in the context of big data

1. Lack of innovation in the education management system

The education management system of colleges and universities lacks pertinence and advancedness. In the tide of higher education reform, some colleges and universities have failed to actively introduce and promote digital technology, have not yet established a systematic

and complete education management platform, and the education management system is not perfect. The education management system of some colleges and universities has a certain lag, which makes it difficult to adapt to the environment of the era of big data, and even blindly maintains a rigid management style and carries out work in accordance with unified management standards. It is difficult to fully consider the differences between teachers and students, which deviates from the long-term development goals of colleges and universities. Innovation is the driving force for the development of colleges and universities. It is necessary for managers to stand from the perspective of big data, recognize the lag of education management concepts, work standards and work systems, actively grasp the transformation opportunities brought by big data, and reconstruct the education management system in combination with the actual situation of the school to ensure that the management work meets the needs of the times.

2.The awareness of the use of big data is not strong.

In education management, some colleges and universities use less big data technology and systems, and have insufficient understanding of the characteristics and role of the Big Data Technology Bureau. Teachers and students do not pay attention to the application value of big data. In practice, some colleges and universities have not yet specified the application goals of big data, coupled with the limitation of school funds, the lack of sufficient technical equipment and unified data standards, making it difficult to ensure the security of data information. At the same time, standardized data management standards have not been established within colleges and universities, and it is difficult to achieve the ideal state of data circulation.

3. The degree of informatization of education management is not high

At present, some colleges and universities have not fully carried out the construction of education management informatization, and have more applied network technology to curriculum teaching activities, and the level of informatization of education management is not high. On the one hand, due to the lack of special funds and technical talent support, when designing the information management system, some colleges and universities fail to consider all aspects of the management work content, the system functions are not perfect, and there are shortcomings in data information collection, privacy protection and application, which is difficult to meet the needs of student management, campus management, curriculum management, etc. The demand of noodles. Therefore, it is necessary for colleges and universities to continuously improve the level of informatization construction and support the application of big data technology.

III. Strategies for Innovative Education Management in Colleges and Universities in the Big Data Environment

1. Increase capital investment and innovate the education management system

First of all, in the environment of big data, in order to accelerate the transformation and upgrading of education management, colleges and universities should use various channels to prepare special funds for informatization construction, increase investment in education management informatization, vigorously develop special network resources, smart classrooms, smart education management systems, digital libraries, etc., and introduce Advanced hardware equipment and software systems create conditions for the application and promotion of big data technology. Secondly, managers should fully understand the advantages and disadvantages of big data technology and improve the education management system. Secondly, in the big data environment, the data privacy protection of teachers and students is a major problem. In order to avoid the leakage of social information, academic performance and personal information, colleges and universities should start from reality, clarify the requirements for education management staff, strictly formulate big data application rules and regulations, and restrict and standardize management.The use of big data of personnel, on the basis of ensuring the accuracy, reliability and integrity of the data, do a good job in the security and confidentiality of teacher and student data. In addition, the school can establish a special big data management department, which is responsible for applying information technology, network technology and big data technology, collecting relevant data, and setting up different levels of data access rights according to the education management responsibilities of each department, allowing internal personnel to access and use confidential data, and improving the convenience of education management. And security.

2. Strengthen the special training of talents and establish the awareness of big data

First of all, college managers should adhere to the principle of keeping pace with the times, master the application value of big data through in-depth research and study, combine the actual situation of the school, carry out special publicity, special conferences and talent training, and increase the attention of staff to big data, so that they can apply big data technology in their work. Give full play to the function of big data service. Secondly, the school should focus on the topic of big data application, carry out training for all teachers, guide teachers to establish big data education and management awareness, and require them to convey big data thinking to students, so that teachers and students can form big data awareness. Specifically, colleges and universities can use online and offline methods to hold big data awareness training activities, invite personnel from various management departments to discuss the application direction of big data in education management, and explore education that meets the needs of teachers and students.Manage the reform approach, and encourage managers and teachers to offer suggestions, participate in the application, management and supervision of big data, and enhance their awareness of big data.

In addition, the school can build a campus culture of big data management. In the construction of campus culture, schools can design campus culture publicity columns around data education management, advocate the use and promotion of big data for all teachers and students, and create a campus atmosphere where all staff use big data.

3. Introduce advanced technology systems and build a digital management mechanism

In the big data environment, in order to innovate the working mode of college education management, managers need to introduce or build advanced information technology systems, and comprehensively use a variety of information technologies to comprehensively build a digital education management mechanism and accurately implement education management. First of all, schools should pay attention to the integration of information technology, big data technology and education management, and formulate digital education management plans. Based on the existing education management system of the school, managers can use big data technology to build a more systematic and detailed management system and framework, and use the three-dimensional working mode to replace the flat work pattern. In terms of ideological and political education management mechanism, schools can use Internet platforms and big data technology to analyze the ideological problems of college students, and use data results to analyze the shortcomings in ideological and political education and solve problems in a targeted manner.Secondly, schools should deeply study the application field of big data technology and promote the reform of the education management system. In specific work, managers can accurately collect and manage student data with the help of 5G network conditions, improve the speed of data information processing and sharing, and also find the shortcomings of education management work in time and improve the education management system. In addition, in the process of using big data, school managers can build a special big data information management method, adopt classified management method, process scientific research data, teaching data and student data, and give full play to the information analysis, storage and integration functions of big data.

4. Give full play to the advantages of big data technology and realize the intelligent management of students

In the big data environment, college education management is developing in the direction of intelligence. Schools can use big data technology to automatically collect and use various data sets, reduce the difficulty of data analysis and collection, mine more valuable data information, and efficiently carry out student management. Schools should configure various data collection sensors, data mining algorithms, intelligent hardware and communication networks, use big data technology, build a big data student management system, automatically process massive student information, and identify and convert valuable feedback information. In the application of data, managers can collect data on students' movement trajectory of campus life and learning, give feedback to higher management, and provide data support for leaders to adjust management measures. For example, schools can use campus cards and wired networks to collect students in teaching buildings, canteens and gymnasiums.And the activity trajectory of the library, establish a behavior scale model, simulate digital portraits of students, and objectively reflect the growth and development of students in school. Schools can also use big data technology to carry out management and education. In campus life, the canteen is a major consumption place for students, reflecting the consumption level and demand to a certain extent. Schools can use big data to establish a canteen consumption data model, start with food consumption data, integrate students' performance in other aspects, obtain data from students with life difficulties, and carry out targeted assistance work. In this way, the school can use big data to provide students with work-study positions and improve the fairness of the grant. Through the scientific application of big data technology, the school can build a smart campus, understand the actual situation of student management, and improve the level of education management.

IV. Concluding remarks

To sum up, based on the big data environment, promote the development of college education management in the direction of informatization, intelligence and modernization, which affects the overall operation, school level and talent training quality of the school. Therefore, colleges and universities should establish the concept of keeping pace with the times, combine the actual situation of the school, understand the teaching needs of contemporary teachers and students, recognize the shortcomings of education management, and actively promote the integration of big data technology and education management. Specifically, through the innovation of the education management system, the establishment of big data awareness, the construction of a digital management mechanism, the realization of intelligent education management, etc., it is necessary to give full play to the role of big data technology in education management, improve the scientific, effective and humanistic nature of modern education management, and provide for the high-quality development of college education. Lay the foundation.

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