Application of Big Data Technology in College Students' Education Management

Bo Xiao, Dr. Ganratchakan Lertamornsak

Department of Educational Administration graduate school, Suan Sunandha Rajabhat University, Bangkok 10300, Thailand.

Abstract: Big data technology has strong information processing ability and can fundamentally improve the overall efficiency of college students' education and management. Under the influence of the big environment, college students are vulnerable to many external factors. School education management workers must start from different angles, use big data technology to complete the education and management of high-level and high-quality college students, and help students deal with the impact of new ideas, only in this way can students grow into useful talents needed by the society with correct ideas and advanced thinking. Based on this, this paper starts with the application value of big data technology in college students' education management, analyzes the problems existing in education management, puts forward the scientific application strategy of big data technology in education management, and tries to lay a solid foundation for the efficient development of college students' education management.

Keywords: Big Data Technology; College Education; Management Work; Application Strategy

Introduction

In the era of network informatization, the application value of data has been fully excavated, and big data technology has been further combined with the field of education. In the educational management of college students, educators need to take forward-looking thinking and use modern educational technology to guide students to contact new technologies and knowledge in the process of social development. Students will become new talents at the forefront of the times. Teachers have successfully combined big data technology with college students' education and management. Students also correctly understand the role of big data technology in the Internet era, see the information brought by big data to the advancement of society, face up to advanced technology, avoid relying too much on technology and ignoring the improvement of their own theoretical knowledge and basic ability, standardize their own behavior with correct ideas, and grow into new talents with responsibility. Therefore, college students' education management workers must use big data technology to optimize the management work, so as to promote the sustainable development of students.

1. Application value of big data technology in college students' education and management

1.1 Speeding up the informatization of education management

In the development of college students' education and management, information data has a certain complexity. If it is carried by people, it is bound to fail to improve the overall efficiency of management. With the rational application of big data technology, college students' education and management staff can fully tap the potential value of massive data and extract the most important, critical and effective information from a large amount of miscellaneous information with the help of the advantages and characteristics of big data [1]. On this basis, the education management staff will further analyze and process the extracted data with the help of big data technology, bring strong data support to the formulation of college

students' education management work plan at all stages, and ensure that the education management work has certain accuracy and rationality. On the premise of the combination of big data technology and daily work, teachers' management staff start from many aspects, use big data technology to promote the pace of information construction of education management, create a humanized and information-based good management environment, avoid excessive influence of subjective factors on the development of management work, and enable the education management of college students to be carried out orderly and efficiently with the support of big data technology.

1.2 Conducive to improving the timeliness of educational management

Under the traditional mode, college students' education management is easy to be limited by time, the overall effectiveness of education management is insufficient, and it is lack of convenience for the release of important information and curriculum arrangement. With the comprehensive response of big data technology, college student education and management workers can use advanced technology to timely understand the behavior dynamics of college students at all stages, comprehensively and deeply analyze the change trend of students' behavior, so as to grasp the characteristics of students' psychological growth, and accurately predict and avoid the risks of students' growth and management with the help of advanced technology. In the process of traditional education management, the ideological education is insufficient, the amount of information obtained by education managers is insufficient, and the students' dynamic grasp is not comprehensive. In the further combination of data technology and education management, education managers reasonably and scientifically use big data technology to collect and integrate students' behavior data, build students' behavior files, point out the direction for the optimization of students' education management work plan, make the management work show initiative and pertinence, and accurately solve the problems encountered in the process of students' growth, The timeliness of student education management has been greatly improved.

1.3 Giving play to the leading and guiding role of ideological and political education

The deep combination of big data technology plan and various work of college students' education and management in the new era can collect abnormal situations of students' psychological development. Education and management workers should pay attention to ideological and political education, carry out targeted and scientific ideological and political education, guide college students to participate in learning and social practice activities at all stages with correct ideas, and greatly improve the comprehensive quality of students, Students will grow up healthily in a good management environment [2]. Big data technology helps college students' education management workers obtain students' growth data in different periods, and the leading role of ideological and political education will be brought into full play. Education management workers will complete ideological guidance according to students' growth needs and psychological change trends, and students will grow with a positive and sunny mentality.

1.4 Transforming extensive management into fine service

In the educational management of college students, the effectiveness of Ideological and political education must be further strengthened. Education management staff can collect social hot issues concerned by students through online channels, and guide students to participate in different types of practical activities under offline activities. Education managers use big data technology to show all kinds of ideological problems in students' growth, explain the causes of students' emotional fluctuations with the help of cases, and help students find ways to correctly control their emotions. With the rational and scientific application of big data technology, the education and management of college students has gradually changed from the previous extensive management to meet the actual needs of college students in the growth process with refined services, so that students can enter the changing society with correct ideas and fully realize their personal values.

2. Problems in the application of big data technology in college students' education management

2.1 Insufficient standardization construction

In the new era, college students' education and management staff make use of big data technology with advanced ideas, which not only brings convenience to the development of management work, but also highlights some fundamental problems. In particular, there is a lack of unity in management, and there is also a lack of construction strength for standardization construction. Education management workers have weak awareness of the application of big data technology and they only use big data technology to collect the change trend of students' scores, which failed to help the formulation of students' education management work plan. In the process of standardization construction, the capital investment is not in place, there is a lack of professional management talents, and the research on theoretical guidance is not deep enough, even the use of big data technology is not conducive to the unification of management mode [3]. In addition, there are some differences in college students' education management system, and the information is also highlighted. It is also targeted and independent, which makes the management system lack of unity, the coordination between various information management work is insufficient, and the information data system with integrity is not constructed in time, resulting in the lack of timeliness of students' education management work, which can not be carried out in depth and efficiently.

2.2 The advantages of big data technology not having been brought into play

Big data technology has extremely high application value. Some college students' education and management workers ignore the further application of big data technology, which brings varying degrees of obstacles to the comprehensive application of big data technology in management, which is not conducive to the effective exertion of the advantages of advanced technology. Due to the difficulty of semi-structured data processing, student information data itself has regularity, and there will be non-structural data, but it can not be recorded and managed only by numbers or corresponding characters, but can be represented by images. If the processing of semi-structured data is not in place, it is bound to cause problems in the conversion between structured data and unstructured data, lack of information sharing, and naturally hinder the transmission of information. This is because the information generated by students is complex and cumbersome. Ordinary data processing methods can not meet the processing and transformation of semi-structured data, which has become an obstacle in the process of data circulation. It is unable to give full play to the advantages of big data technology, exposing the fundamental problem of low level of technology application.

2.3 The data island phenomenon not been solved

In the vigorous development of student education and management, the contact between various departments of the school needs to share information, and the information obtained by various departments is often independent, and there are some differences in the way of information acquisition, which directly leads to the emergence of information island phenomenon and brings varying degrees of obstacles to the comprehensive development of follow-up college student education and management. Some students' management staff failed to flexibly use big data technology, insufficient information integration, ineffective combination of scattered data, and inadequate mining of potential value of data, which brought some obstacles to the sequential development of management work at all stages.

3. Application strategy of big data technology in college students' education management

3.1 Enhancing data awareness and promoting management

The application of big data technology in college students' education and management must greatly strengthen the data awareness of teachers and students, so as to promote the smooth development of students' education and management. Then, first of all, we must use data technology to fully understand the school development data, master historical data, pay attention to the analysis of various external data, and clarify the school development, so as to scientifically optimize and enrich the content of education management and effectively improve the core competitiveness of the school. Secondly, do a good job in student management. Relevant education management staff must realize that college students are the key to the rapid development of society. They will have an active interest in exploring new things and have a high degree of acceptance of new knowledge and ideas. With the support of big data technology, student education managers can help students form expansive thinking, so that students can have a further understanding of social phenomena with data awareness, and grow into innovative talents needed by the society through the improvement of their learning ability. Finally, big data technology can highlight innovation in the process of education, use the data generated in student education and management to mine management value, which in turn will bring strong support for the development of management, and the education and management of college students will achieve long-term development.

3.2 Establishing data platform and grasping students' ideological Trends

In the orderly development of college students' education and management, the number of event data is huge and changing. In this situation, college students' education management workers must complete the corresponding development of basic work in the management platform. As big data technology can help build the management platform, it can quickly share and safely store all kinds of important data [4]. Then, college students' education and management staff must actively and flexibly use big data technology, pay attention to the further construction of big data platform, use data analysis to give full play to the value of event data, and students' education and management will show efficiency and rationality. With the vigorous construction of the data platform, the ways of student education management have been expanded accordingly, and the managers can grasp the ideological dynamics of students at all stages in time. Because big data technology has many advantages, its information range is wide, and the processing speed of all kinds of information is very fast, the main problems existing in traditional teaching and management methods can be solved under the reasonable application of big data technology. With the comprehensive and in-depth application of big data technology, ideological and political teaching has been innovated, and the teaching scheme can be optimized according to the students' ideological dynamics.

3.3 Improving management quality and realizing management reform

The application of big data technology can continuously enhance the coordination of school management system, but the application of technology must be completed by professionals, and the construction and maintenance of data platform can not be separated from the support of professional teams. Therefore, the establishment of professional and technical team is particularly important. Schools must pay attention to the ability improvement of college students' education and management workers, so as to effectively promote the management reform in subsequent stages. Specifically, first, major universities must strengthen the training of data technology application teams, and each member of the management team must actively participate in various trainings, have a further understanding of the advantages of big data technology, and realize the important significance of the combination of big data technology and college students' education and management. Second, establish and cultivate professional teams, give full play to the due role of big data technology, and vigorously reform the education management, which can not only improve the overall quality of the management team, but also help optimize the training scheme of technical talents. Under the information construction, the data generated by students and teachers in the process of learning and teaching are effectively collected and safely stored. College students' education management staff can comprehensively investigate the teaching situation and learning effect of each stage according to the collected important information, formulate a targeted and reasonable management scheme in combination with the actual needs, and teachers can also ensure that the teaching objectives of each stage are accurate and scientific.

3.4 Eliminating information islands and completing the comprehensive integration of data

The education and management of college students is complex. The information security of students must be guaranteed, but the problem of information island and insufficient data circulation should be avoided. Then, college students' education and management workers must have strong professional ability to ensure the reliability of the use of big data technology, and all kinds of key data can be more secure. Therefore, the information isolated island must be eliminated, and the college student education management workers should start with the collection of such information and integrate the original independent individuals. Colleges and universities should also actively establish a comprehensive management mechanism, so that the connection between multiple departments that may be involved in education management can be strengthened, the collected information can also be safely and quickly shared in the data platform, effectively solve the problem of data island in the work, realize the vigorous sharing of resources, and the student education work will be comprehensive and systematic. All kinds of data can be fully integrated with the support of data technology, and the data collection is normative, which provides sufficient support for the orderly development of student education and management at all stages, so that students can complete efficient learning with the integration of elements of the times.

Conclusion

In the face of massive information, the application of big data technology can fully tap and make use of the potential value of data. College student education management workers must take advanced ideas, pay attention to the rational use of big data technology, deeply combine it with daily student management, and vigorously innovate the way of education management. On the one hand, they can comprehensively improve the teaching quality, on the other hand, they can ensure the effectiveness of student management, and cultivate students into technical talents with certain innovative spirit and labor consciousness. From the perspective of college students, college student managers should solve the problems existing in the previous education management work one by one with the help of big data technology, grasp the ideological dynamics and growth needs of students at all stages, bring strong support for the innovation of education schemes and management means, ensure that the development of teaching and management work is efficient and scientific, and provide a high-quality platform for students' personalized growth.

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