

Analysis of the "One-stop" Student Community Education Quality Improvement Way under the Background of Big Data

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Abstract

Big data technology is applied in the field of college students' education management, especially in the community in education management and education and teaching plays an increasingly important role in education. This paper analyzes the big data technology to improve the quality of "one-stop" community education, analyzes the big data technology to improve the status of "one-stop" community education quality, from the use of big data thinking, play the advantage of big data, improve the big data mechanism, etc., discusses the analysis using big data technology to improve the quality of "one-stop" community education implementation path.

Keywords

"One-stop" community management; Big data; Quality improvement.

1. Introduction

General Secretary Xi Jinping has pointed out: "We should promote ideological and political work through the talent training system, and give full play to the integrated, embedded and infiltrating coordination effect of moral education." [1]. The application of big data technology in various fields of society, especially in the field of university education management, promotes the efficiency and quality of management, and provides valuable value information for meeting the needs of teachers and students and data mining, processing and expected judgment. People's growth and development are influenced by their own environment. People can create the environment, and the environment can also create people. Marx once said that man is the sum total of social relations. The learning and living community environment with the student dormitory as the core, with the canteen, supermarket and related cultural supporting facilities as the auxiliary space will directly affect the growth and development of college students. The large number of students in colleges and universities produces large data, high fast update frequency of student situation changes, multiple information types and complex data, etc. It can just take advantage of big data technology with the advantages of large data volume, fast processing speed, many types and high complexity.

2. The Value and Significance of Big Data Technology to Improve the Quality of "One-Stop" Community Education

Big data technology is applied in various industries and fields to boost industrial development and achieve practical results. In the environment of a large number of college students and complex types of data, how to effectively collect and make good use of the data reflecting the phenomenon of education management and students' daily status, so as to improve the efficiency and quality of students' education management, and help leaders to make effective decisions, is the key to using big data technology in the field of education management.

2.1. It Is Conducive to Mastering the Comprehensiveness of Students' Education and Management

To improve the effectiveness and quality of student education management, to be based on the accurate information acquisition mechanism and method, there is no doubt that the emergence of big data technology can achieve this management goal. Students' study and life information and data in the college period include personal information, teaching information, the second classroom quality development information, financial payment, living consumption, library borrowing, dormitory access and campus, and many other fields. Through the integration and unified mining and analysis of these data, can be on the students' thinking, psychology, learning, ability, literacy and other aspects of the comprehensive grasp and understanding, so as to better find the advantages and deficiencies in the growth of students.

2.2. It Is Conducive to Strengthening the Pertinence of Student Education and Management

In individual colleges and universities, one counselor has to bring hundreds of students. Although the Ministry of Education has issued a regulation that the number of counselors should not be more than 200 students, some universities still have more students in one area due to the lack of teachers and tight funds. This undoubtedly increases the difficulty of educational management and affects the progress of students' personalized growth. The so-called teaching according to talents is the process of personalized training according to the reasonable needs of students and the characteristics of students and school resources. So in the whole process of students' education teaching, especially in the student dormitory as the main body of the living space to fully respect the students' individual differences and find the students' personality characteristics, consciously and "silent" to do some targeted education management work to meet the needs of students, promote the personalized growth and development of students. For example, through big data query and comparison, students who find that spending three meals a day in the canteen is far lower than the average consumption level can quietly send the living allowance directly into the student one-card meal card or personal account. The school not only helps the poor students but also realizes the purpose of protecting the students' privacy and self-esteem. Then promote, in the whole process of education and teaching, all kinds of process big data are used to find the advantages and deficiencies of students, and to present personal growth portraits through data mining and result analysis. Thus, in the ten education systems of science and technology education, management education, service education and funding education, we can strengthen guidance according to the need and supplement what is missing, so as to achieve precise and personalized education. Precision education, based on extensive technology, can not only meet the actual needs of individuals, but more importantly, it can analyze and predict the rules and trajectory of college students' activities, and feedback them to teachers, so as to finally realize accurate education and accurate assistance [2]

2.3. It Is Conducive to Highlighting the Timeliness of Student Education and Management

Community education management has its own laws and time constraints, after the time, the value and significance of information will be affected. For example, during the epidemic period, students should go into the dormitory to count students' physical data and travel contact history data on the day. The traditional statistical method is to first design excel forms or design shared forms for students to fill in and then summarize. Obviously, this way is the most effective way under the current technology means, but it is limited and affected by time. Due to the process of manual filling and data collection, there are inevitable errors and omissions, and even the location status of students themselves can not be effectively and timely tracked

processing. Big data technology can effectively solve this problem, not only can we collect data quickly, but also can we can automatically judge whether to intervene and process according to the questions that students answer.

2.4. It Is Conducive to Enhancing the Innovation of Students' Education and Management

The application of big data technology in the field of educational management is the change of the traditional educational management concept and thinking mode and management mode. Developed from the traditional single management mode to interactive interactive management, both speaking and listening, both asking and answering the bidirectional interactive mode. From the traditional passive education management mode to the early warning education management mode of active intervention in advance. For example, Chongqing University of Arts and Sciences requires each dormitory students to fill in each content one by one in the mood thermometer test released by the "Tutoring Cat" APP. After setting critical points and low tolerance for some sensitive issues, the system will automatically alarm and warn. So that it is convenient for education managers to find problems and deal with accidents in time, so that the problem loss is reduced to the minimum or due to timely intervention, so that students receive the right education so as to get on the right track and into the right way.

3. The Current Situation of Big Data Technology to Improve the Quality of "One-stop" Community Education

Community management is not strange or long ago in colleges and universities. From the previous single student dormitory management to the current multi-functional and multi-place learning and living space operation, it reflects the upgrading of community education management. With the progress of The Times and the development of the society, especially the integration of big data, the Internet and other information technologies into the education management, the construction and function of the student community have been pushed to a new climax. The Ministry of Education will expand the construction scope of pilot community management universities to 31 by 2021. Through exploration, the pilot universities have formed their own characteristics and highlights, so as to further promote the reform and innovation of education and training mode, management and service system, collaborative education system, and support and guarantee mechanism, so as to truly realize the effect of "three and complete education". Colleges and universities that did not participate in the pilot program will also explore and practice the "one-stop" education management mode. Combined with the current situation, the author believes that there are some problems, such as insufficient data concept and data thinking, imperfect coordination mechanism, insufficient technical investment, and low data mining and utilization rate.

3.1. Lack of Big Data Concept and Data Thinking

Data is the carrier of information expression, and information is the connotation of data. At present, schools at all levels and of all types attach great importance to the community construction of students and the application of information technology in the field of community education management, which plays an important role in promoting the overall education management of students. However, after investigation and understanding, it is found that there are still three difficulties. First, there is little research and application of big data technology in the field of student education management. Although leaders at all levels have expressed great importance to the construction of big data and strengthening the application of big data technology in various fields on campus, an effective data decision support system has not been formed due to various reasons, and failed to make full use of data to help decision-

makers to make more forward-looking, scientific and more in line with the objective law of development decisions. Secondly, due to the limitations of managers themselves and cognition, there is insufficient information literacy and failure to meet the requirements of big data literacy; the awareness and skills of data collection, sorting, analysis and application need to be further improved. Thirdly, due to the lack of overall design and batch construction at the school level, there are many systems designed and developed by various departments, such as the database can not be shared, the interface connection is not smooth, inconvenient query, untimely update, incomplete data and other situations. The above several situations and phenomena basically exist in the management of community education. Although all colleges and universities have used the card or access control system, the role of the card and the use of the data generated behind it are still in a relatively simple stage.

3.2. Community Education and Management Mechanism Is Not Sound

The large amount of data generated in the community study and life of teachers and students in universities and various data generated by various departments are compatible with the use and interface docking, and timely update and maintain the overall consistency. First, the lack of data sharing mechanism is lacking. There are many administrative departments of colleges and universities. Due to the historical reasons and insufficient overall planning of information technology in the development process of colleges and universities, the lack of mutual docking and sharing is caused. There are often different departments to export the data for the front-line staff to check and update the phenomenon, resulting in an increasing workload. The second is that there are more systems or platforms. Teaching, education, party and government, logistics and other departments have their own systems, resulting in low integration, cumbersome operation, inconvenient use and other problems. Third, meeting the demand of big data analysis is not enough. Due to the traditional construction process of the delayed upgrading, the existing data cannot meet the analysis needs such as large amount of big data data, rich data types and accurate data reflection value. Fourth, the integrity and safety are not enough. Integrity refers to the completeness of data that cannot meet the requirements of big data analysis and the requirements of modern campus intelligence; security refers to the existence of rigor and loopholes in the data encryption processing and information acquisition of facilities and equipment. If the system has security vulnerabilities, the password is too simple, the sensitive data is not encrypted or the encryption is not enough.

3.3. Low Utilization Rate of Data Acquisition and Mining

Big data technology are somewhat different from traditional data collection and analysis. Traditional data use sampling analysis to draw sampling conclusions. Big data is to collect and analyze all the data and get the overall results. Therefore, the timeliness, completeness and effectiveness of data collection become constraints on current community data sharing. One is the timeliness of the data. In the category of community education management data, there are basic information such as students' one-card, time and place to enter and leave the dormitory, and basic information of students themselves, such as class professional grade and counselors, but many databases are not updated in time, which affects the query and review. The second is the data integrity. The data collection and query of teachers and students in the community should be more comprehensive and accurate, including the time, matters and positioning information of teachers and students entering the dormitory and the activity place, to facilitate student education and managers to identify and judge. Third, the effectiveness of data collection. A large amount of data generated when teachers and students enter the community to carry out educational management activities and teaching activities need to be extracted and effective key information for storage and analysis, and the analyzed data results should be applied to the daily education management and evaluation of teachers and students.

4. Big Data Technology to Improve the Quality of "One-Stop" Community Education Realization Path

Using big data technology to build a "one-stop" community education management system, improve the quality of community education management, the key is to practice "a line rules", guide and encourage resources, including big data technology and thinking mode, power to the community, explore and establish "community education quality system" a top-level design pattern, the big data technology advantages throughout the whole process of community education, constantly improve the big data application mechanism, so as to promote college students' comprehensive accomplishment, exercise skills, realize the great rejuvenation of the Chinese dream and cultivate successors and builders.

4.1. Use Big Data Thinking to Build An Integrated Talent Training Work Pattern

Big data is the third largest strategic resource after material and energy, and plays an important role in all walks of society. First, we should fully realize the importance of big data technology. Establish big data thinking and use big data technology to promote the construction of information technology in colleges and universities, facilitate decision-making consultation and accelerate the improvement of education quality. Second, we need to establish a big data thinking mode. First of all, it is the difference between whole and partial. The traditional use of data analysis is more sampling data analysis, while big data is the overall data analysis, which makes the analysis more comprehensive. Secondly, it is the difference between causality and correlation. Traditional data has causality analysis. Big data thinking is not causal thinking, but the analytical thinking of correlation and correlation. Thirdly, it is not just accurate thinking, but also mixed nature. Simple algorithms of big data are more effective than complex algorithms of small data.

4.2. Give Full Play to The Advantages of Big Data and Integrate Community Education Management Into Talent Training

Big data has the advantages of fast, timely, mining the truth behind the data, and mastering the development rules of things for prediction. Use the advantages of big data to speed up community education management and realize the improvement of education quality. First, we should speed up the construction of community education system and mode, so that it is effectively integrated into the talent training program. Practice shows that students' study and life time in the community is getting longer and longer, and the community environment and activities have an increasing impact on the shaping of students' personality and their growth. Therefore, we should establish the concept of great talent training, and have the concept and action of "educating people everywhere, educating people always and educating everyone". To carefully design community education training scheme, mode, promote the school resources sinking, extend to the students a line, tilt to the community, to guide the life mentor, professional mentor, peer mentor students community a line for students' life development direction, ideological psychology, academic planning, professional development as guidance and guidance, help students grow rapidly, at the same time under the guidance of big data technology, for various processes of records and storage, convenient analysis and mining. Second, we will use big data technology to build a one-stop community education and management platform. Colleges and universities involve many teaching, education, logistics management and other platforms, and the establishment of one-stop education management platform cannot be completely independent of the main system of colleges and universities. At the same time should make full use of the main system of all kinds of basic information, through multi-source heterogeneous data sources, make all kinds of data sharing, depth record students in the community and school education management in the process of growth and development

of documentary data, mining data information, realize a key portrait, a key to record all the growth of students function and goal. At the same time, through the critical value set in advance, the intelligent budget to achieve early warning, intelligent recommendation, scientific evaluation and other functions.

4.3. Improve the Big Data Mechanism to Provide A Strong Guarantee for Community Education and Management

The implementation of any management mode and the results of the results need a set of sound system and mechanism to ensure. First, we need to establish a leadership contact and coordination mechanism. Set up community education management leading group, managed by the school party secretary and in charge of the leadership in person, coordinate teaching, engineering, personnel, organization department, scientific research, logistics, colleges and information technology center department resources and strength in the community to carry out the common service and educational activities, at the same time according to the characteristics of each professional to implement personalized innovative education activities. Second, the establishment of an effective operation and implementation mechanism. First of all, the establishment of the one-stop education management system and the exploration of the mode should increase the supporting policy support and attention from the aspects of policy, platform, capital, teachers, system and scientific research, and the scientific formulation of the education management plan. Secondly, we should formulate the mechanism and carrier satisfied with the operation of the team. For example, in exploring the community education management mode, Chongqing University of Arts and Sciences concentrates the student affairs office, enrollment and employment Department, and administrative function handling departments around the student dormitory, and sets up a student affairs center to provide one-stop services to reduce the phenomenon of students running around to handle affairs. At the same time, the weekend cultural square activities were held in the community service center, and the dormitory student management center is set up to build a platform for the growth of students and serve students' daily life. Thirdly, implement the goal navigation plan of life mentor + professional mentor and peer mentor, hold professional activities and academic development consulting activities in the community, and more stick to students and better serve students. Third, the establishment of an incentive, reward and punishment mechanism. Only when the effective policy incentive mechanism can we attract and promote professional teachers to participate in the community education management and teaching guidance. First of all, the teachers who meet the conditions should be given priority to the professional title evaluation, promotion and excellent and evaluation after reaching the target assessment task under the same conditions. Secondly, further policy support should be given to the units with outstanding achievements in the community education and management activities, and those with outstanding achievements and contributions should be appropriately tilted in the promotion and reuse of cadres. Finally, to the poor performance in this activity, pay insufficient attention to the units and individuals to give an appropriate notification and reflected in the target index assessment. Fourth, the conditions and the security guarantee mechanism. First of all, we should pay attention to the confidentiality and security of big data technology in the operation of one-stop education management mode, the multi-source data heterogeneous and access, and students' various data collection, presentation and analysis, so as to prevent data leakage, theft and tampering. Secondly, it is necessary to build a public physical space with complete functions and equipment to meet the needs of community students in reading, self-study, discussion, consultation, road show, fitness and leisure, and to provide working and living conditions to meet the needs of guidance for the settled tutors, so that they can feel at ease in the community work.

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