The Application of Big Data Technology in the Evaluation of Course Ideological and Political Teaching

Jiajing Cai[1,a], Jinmei Shi[1,b], Ailing Zhou[1,c], Jicheng Kan[2,d]

[1]Hainan Vocational University of Science and Technology, Haikou, Hainan 571126, China
[2]The National University of Malaysia, 43600, Malaysia

[a]caijj_claire@163.com [b]Shijinmei1003@hvust.edu.cn [c]18789672410@163.com [d]p116943@siswa.ukm.edu.my

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Abstract: In the new era of information globalization, big data technology, as a new technology with modern characteristics, is gradually changing people's lifestyle. The importance and necessity of big data for evaluating the quality of ideological and political education in colleges and universities is self-evident. Ideological and political education in colleges and universities should take this as an opportunity to meet the development trend of the times, face the challenges brought by big data technology for ideological and political education in colleges and universities, and further consolidate the achievements of ideological and political education in colleges and universities. Explore the general idea and tentative idea of big data resources for reforming the evaluation mode of ideological and political education in colleges and universities, and try to establish the evaluation and analysis model of ideological and political education according to big data resources and technologies. Alleviate the dilemma of practice teaching and create a new form of virtual practice teaching; Constructing a new path of practical teaching of ideological and political theory course. And according to the new characteristics of Internet thinking, explore, think and improve the scientific and rational ways and methods of quality evaluation of ideological and political education in colleges and universities.

1. Introduction

With the development of Internet technology, the amount of information and data has exploded, thus the society has entered the "big data era". In a certain sense, data is a social revolution. The pervasive existence of data has profoundly promoted the changes of people's thinking concepts, behavior habits and lifestyles. With the rapid development and socialized application of the new generation of information technologies such as big data, cloud computing, smart city, remote control, cloud VR technology and artificial intelligence, the ideological and political work in colleges and universities in China is facing an unprecedented complicated situation. Facing the vigorous development of big data and the in-depth life of smart phones, this "all-in-one data" collection technology is full of every scene in life. Big data has the absolute ability to make colleges and universities systematically record and count students' physical and mental development and ideological and political education achievements, and obtain important information to promote the progress and development of the school through the integration of data. Therefore, if colleges and universities want to better carry out ideological and political education and take scientific decisions in the process of Ideological and political education, they must use big data technology. With the support of big data technology, education evaluation is no longer used to support the decision-making needs of education management departments and educational institutions, but can serve all groups or individuals who pay attention to education and participate in education. In the era of big data, whether we can truly and effectively analyze massive research data and explore the laws and values behind data phenomena depends on people's understanding and attitude towards data and its potential value and functions.

Big data technology analyzes students' learning situation, so as to select educational methods and

means more in line with students' actual situation, so as to better ensure the teaching quality of Ideological and political education. This most authentic and reliable data existing in daily life can not only reflect the macro function of big data, but also do their best to carry out micro data analysis, which undoubtedly provides an excellent reference for the development of Ideological and political education in Colleges and universities from both the overall and detailed aspects, and is conducive to improving the effectiveness of Ideological and political education in Colleges and universities. Ideological and political education is also bound to comply with the trend of the times, make use of the technical advantages of big data collection, processing, mining and analysis, innovate the theoretical guidance and practical application of Ideological and political education quality evaluation in Colleges and universities, formulate practical evaluation implementation strategies, enhance the objectivity, scientificity and effectiveness of evaluation, and improve the high integration of traditional evaluation and information technology. Based on the application of big data in the market, this paper discusses and studies the application of big data in China's ideological and political education in detail.

2. The Status Quo of Big Data in Ideological and Political Theory Review

2.1 Overview of Big Data's Ideological and Political Education in Colleges and Universities

Big data is a massive, high growth rate and diversified information asset that needs a new processing mode to have stronger decision-making power, insight and discovery power and process optimization ability. Big data, as a feature of today's era, is changing people's way of life and thinking with its unique characteristics of "big, much and fast". Big data mining is a process of discovering valuable and potentially useful information and knowledge hidden in massive, incomplete, noisy, fuzzy and random databases. It is also a decision support process. Based on the development of big data technology, the practical teaching of Ideological and political theory course in Colleges and universities must realize the transformation from traditional teaching to modern teaching. The traditional evaluation method of ideological and political education effect can't adapt to the new environment and can't play the guiding role of evaluation well. Compared with traditional data, big data has undergone fundamental changes, mainly in terms of quantity, structure, mode, mode, etc. The storage quantity of data has a huge range, which has changed the traditional structured data storage space. On the basis of the increase of the quantity, the data mode is also constantly developing and changing. As a new resource acquisition channel, data has strong flexibility and can change with time. The mining process of big data technology is shown in Figure 1.
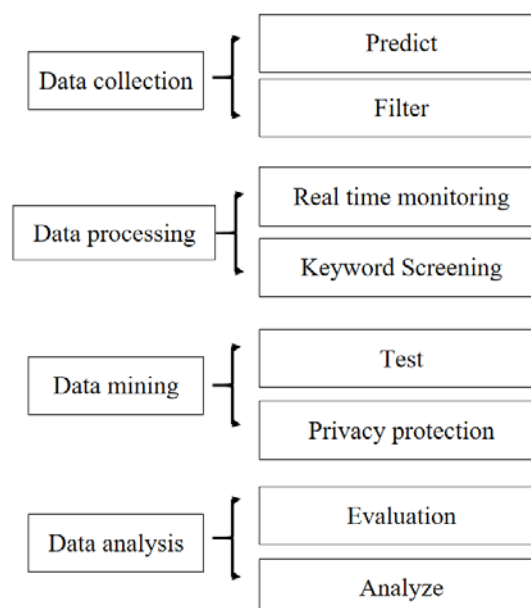
Fig.1 Big Data Mining Process

We should apply big data to the practical teaching of Ideological and political theory courses, deepen the understanding of teaching laws through big data analysis, establish frameworks such as data mining, data analysis and data modeling, use big data to promote practical teaching innovation, set teaching contents, grasp the ideas of teachers and students, evaluate students' learning behavior, and establish new teaching ideas, Constructing new teaching models, so as to enhance the effectiveness of practical teaching. At present, college students' computers and mobile devices have been popularized, and the construction of digital campus is becoming more and more perfect. Data has tightly surrounded their learning and daily life, forming new features of networking such as thinking, life and learning.

2.2 Current Status of Big Data Applications

In recent years, the idea of comprehensive education has been implemented. Under the guidance of this idea, the development scale of colleges and universities has gradually expanded, and new educational requirements have been put forward for the training scheme of ideological and political education in colleges and universities. Information and data construction should be strengthened in every link to ensure the perfection of the education system and meet the development requirements of the great era. However, the traditional teaching mode of ideological and political theory course in China is basically indoctrination theory teaching, which obliterates the subjectivity, initiative and creativity of students' learning, "taking textbooks as the center, teachers as the main body and classroom as the platform", and students usually learn knowledge passively. At present, the modern technology of ideological and political education in China is difficult to cater to the current trend of informatization, and the development degree and construction process are slightly insufficient. Applying big data technology to the effect evaluation of Ideological and political education involves multi-disciplinary knowledge such as data storage, analysis, mining, result presentation and evaluation model establishment. When analyzing big data of educational effect, the technical barrier is a difficult problem faced by teachers. The ideological and political education system lacks certain characteristics of the times, which indirectly leads to the poor effect of Ideological and political education; In terms of information and data construction, there are still external evaluation conditions such as government and fire control, and students' participation is not enough, resulting in low disclosure of information and data. The era of big data is full of massive information resources. The processing of complex data brings challenges to the exploration of practical teaching resources of Ideological and political theory course, and increases the difficulty of screening and processing practical teaching contents. With the application of big data in all walks of life, data has become a symbol of wealth. In the face of the temptation of high returns, false data emerge one after another. Therefore, it is difficult to use the data in the evaluation of the effect of Ideological and political education. The status of Ideological and political teaching in educational resources is shown in Figure 2.
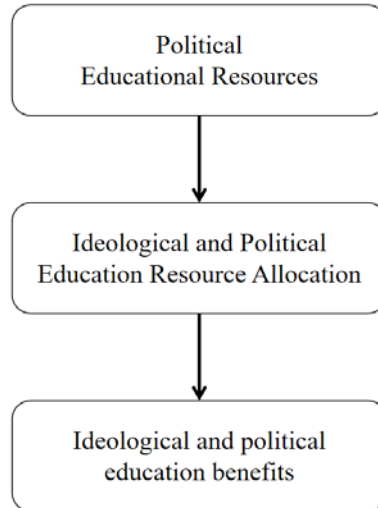
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│ Educational Resources   │
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Fig.2 The Status of Ideological and Political Teaching in Educational Resources

3. The Path of Applying Big Data to Ideological and Political Teaching.

The application of big data in the evaluation of ideological and political education can effectively optimize the training of talents and improve the professional information literacy. Make full use of the characteristics of big data, integrate all kinds of data, and enhance the ideological education of teachers and students; At the same time, it has promoted the systematic development of ideological teaching and formed a deeply integrated evaluation application. Exploring its path should start from the following four points.

3.1 Change Traditional Education Concepts

We should change the educational concept in time. Only by forming a new educational concept, realizing the benefits of informatization to college students' ideological and political education, making timely adjustments, keeping up with the pace of social development and enriching the educational content can we better carry out ideological and political education. The era of big data brings not only the revolution of teaching methods and teaching quality to ideological and political education in high schools, but more importantly, it guides educators to change their ideas and promote the new revolution of ideological and political education in high schools with scientific means and ways. Therefore, we should deepen the idea of "digitalization", pay attention to the construction of digital hardware and software, and build a good digital learning environment for students, so that students can explore the knowledge of ideological and political education by using modern information technology in the era of digitalization. Carrying out targeted practice teaching for students of different types and majors makes the practice teaching setting more reasonable and scientific, thus improving the effectiveness of practice teaching.

3.2 Strengthen Platform Construction

The innovation of using big data technology in the quality evaluation of Ideological and political work in Colleges and universities must promote the information exchange and resource sharing of data resources. The "timely sharing" of data is not limited by time and space. This is the first and key step of using big data innovation. Associate it with the practical teaching content of Ideological and political theory course, better integrate the effective resources of all aspects of society, introduce it into teaching, expand teaching materials, enrich the teaching resources of Ideological and political theory course in Colleges and universities, so that the teaching content can keep up with the pace of the times and be more effective. Deepen and enrich the course teaching content and improve students' theoretical literacy and practical ability. Use big data technology to collect, screen and analyze massive information, integrate the selected effective information into the practical

teaching of Ideological and political theory course, broaden practical teaching resources and enrich practical teaching content, so as to improve students' enthusiasm and initiative to participate in Ideological and political theory course and enhance the effectiveness of practical teaching.

3.3 Improve the Ideological and Political Education Information System That Meets the Requirements of Big Data

In the era of big data, the "Internet plus" mode is an important manifestation of its development. Ideological and political education in Colleges and universities should seize the development opportunities of this era and build a higher education mode based on the Internet ten ideological and political education, so as to enhance the level and efficiency of Ideological and political education in universities, and further consolidate and optimize the achievements of Ideological and political education in Colleges and universities. Cultivate all-round quality talents for China's socialist modernization. Strong technical and human support is the key to ideological and political evaluation in the era of big data. This network platform can also increase the interaction between teachers and students. Teachers can find and solve the problems encountered by students in time. Moreover, this new teaching method has also changed the traditional single and boring teaching mode, increased the fun of Ideological and political education, and made students more willing to devote themselves to learning.

3.4 Customized Big Data and Traditional Teaching Evaluation and Assessment Mechanism

The assessment mechanism of traditional ideological and political theory course practice teaching is too loose, lacking a unified and quantifiable scientific assessment index system or reference basis, and the shortcomings of systematicness, standardization, operability, poor assessment validity and so on become increasingly prominent. This can be well compared with modern big data. Applying big data technology to practical teaching evaluation system of ideological and political theory course and constructing online evaluation system of cloud platform can quickly and timely get feedback from practical teaching, so that teachers and students can quickly grasp teaching problems and improve teaching timeliness. Promote the ideological and political education to combine the existing educational syllabus with the basic training objectives, select the educational resources of ideological and political massive open online course that are suitable for cultivating thinking and cultivating purposes, build a scientific educational system, ensure the transfer of education to student-oriented and targeted scientific training, ensure that modern educational technology borders the international educational environment, and deepen the educational reform concept of new curriculum reform.

4. Conclusions

The development of big data in the new era has brought a once-in-a-lifetime historical opportunity for the reform and innovation of the quality evaluation of Ideological and political education in Colleges and universities. A science can really become a science only when it makes full use of data, and big data is a tool. However, the allocation of Ideological and political education resources in the new era is still facing problems such as traditional path dependence, insufficient staff quality, imperfect management and so on. The ideological and political education in Colleges and universities in China should continue to innovate, actively respond to the challenges faced by the ideological and political education in Colleges and universities, further deepen the effective research on the ideological and political education in Colleges and universities, optimize the achievements of Ideological and political education in Colleges and universities, and lay a foundation for the steady improvement of the quality of higher education. At the same time, this paper introduces big data into the field of Ideological and political education effect evaluation. It is found that big data can effectively improve the scientificity, diversity, objectivity and comprehensiveness of Ideological and political education effect evaluation. Timely optimize and adjust their own teaching methods, so as to improve the teaching level of Ideological and political education in Colleges and universities and transport more excellent talents for our country. Promote

the integration of network resources and offline resources; Promote the integration of information resources and technology resources; Strengthen the informatization and digitization of the development of Ideological and political education resources; Strengthen the dynamic and flexible allocation of Ideological and political education resources; Promote the specialization and technicalization of the main resource allocation ability of Ideological and political education.

Acknowledgements

References

[1] Hao Wenjia. Research on the Evaluation Method of Ideological and Political Education Teaching Effect Based on Big Data Analysis [J]. Electronic Journal of New Education Era (Teacher Edition), 2019, 000(017):151.

[2] Yang Qin. The impact of big data technology on ideological and political education in colleges and universities in the information age--Comment on "The Application of Big Data and the Development Trend of Ideological and Political Education" [J]. Chinese Science and Technology Paper, 2020, 15(12): 1.

[3] Jing Lei. Research on the Quality Evaluation of University Ideological and Political Education under Big Data in the New Era[J]. Journal of Social Sciences of Jiamusi University, 2020, 38(2): 5.

[4] Lin Xin, Peng Wei, Xu Lei. Research on the Accuracy of Quality Evaluation of University Ideological and Political Education under the Background of Big Data[J]. High Education Journal, 2020(29): 4.

[5] Gao Lijun. Using big data technology to improve the sense of acquisition of the educated in ideological and political courses[J]. Sanjiang Higher Education, 2018(3):5.

[6] Chen Yunling. Research on the effect evaluation of ideological and political education in colleges and universities based on big data technology[J]. Journal of Shandong Institute of Agricultural Engineering, 2017, 34(6): 2.

[7] Duan Lingyan. Research on teaching design practice of ideological and political courses based on cloud teaching big data[J]. Journal of Yan'an Vocational and Technical College, 2018, 32(1): 3.

[8] Zhu Qiaoying. Exploration of the practical teaching of ideological and political courses in colleges and universities under the background of big data[J]. Modern Educational Science, 2017(5): 5.

[9] Zhou Yunfan. The method of deep integration of information technology and ideological and political teaching in the era of big data[J]. Gao Xue Magazine, 2021, 7(32): 4.

[10] Liu Youxian, Liu Yang. Exploration of reforms and innovations in the teaching of ideological and political theory courses in colleges and universities in the era of big data[J]. Comparative Research on Cultural Innovation, 2019(13): 2.