

# **Analysis of the reform and innovation path of ideological education in colleges and universities from the perspective of big data**

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**Abstract:** *The emergence of big data and the arrival of the big data era is a product of national progress and social development. With the maturity and development of big data information technology, as well as the influence of national education policy and other aspects, the use of big data to promote the innovation and reform of teaching methods has also become an important way for teachers. Civic and political education is an important part of the curriculum of colleges and universities, and it can increase students' understanding of important national values and establish a correct outlook; it can unite students' strength and show the spirit of the new era of young people's advancement; it can promote students' growth and development, form a systematic concept, adhere to the beliefs of Marxism, and learn to look at and analyse problems with a dialectical point of view. However, in the reform and innovation of civic education in colleges and universities under the perspective of big data, the lack of the concept of data governance in the teaching team, the need to improve the security protection mechanism of big data, and the lack of support for educational change in the form of big data and other problems affect the development and improvement of civic education empowered by big data. Based on this, this paper will take how to carry out the reform and innovation of civic education in colleges and universities under the big data perspective as the core argument, and put forward relative perfect measures according to the reality.*

**Keywords:** *big vision; colleges and universities; civic education; innovation*

## **1. Introduction**

With the previous stages of education and learning, students have become a group of people with ideas, needs and their own set of ways of looking at things. In the era of big data, with the help of search engines, students can get more massive information, but also pay more attention to their own right to speak. Big data brings students emerging access to knowledge and information, but also provides an opportunity for colleges and universities to innovate the way of ideological education. However, due to the influence of teacher factors, student factors and other factors, the quality of the current Civic and Political Education is poor. How to use big data to reform and innovate the civic education is a problem that teachers in colleges and universities should seriously think about.

## **2. The application value of big data perspective in the reform and innovation of ideological and political education in colleges and universities**

### **2.1. Enhancing the flexibility and precision of ideological and political education**

Under the big data perspective, college and university Civics workers can break through the limitations of the traditional classroom. At the same time, they can search for relevant literature on the Internet according to the teaching content to improve the completeness of the content of Civic and Political Education. In addition, big data has the characteristics of real-time, rapidity, etc., and college ideological workers can also use big data to show students the important things that happen in the society and the school, so as to enrich the education [1]. Finally, big data has the ability to analyse and integrate information, and college political workers can use big data to check whether the information and materials are correct, and improve the accuracy of educational information resources.

## ***2.2. Enhancing the effectiveness and scientificity of ideological and political education***

Civic and political educators in colleges and universities not only need to transfer knowledge to students, but also need to adjust the content and direction of education in accordance with the social development situation and policy changes. Big data has the ability of information integration and search, and when carrying out ideological education, the use of big data can obtain first-hand information in a short period of time and improve the effectiveness of obtaining information. In addition, the college ideological workers can use big data to search for excellent lectures by famous teachers, typical teaching cases, etc., and reasonably introduce them into their own education and teaching process to enhance the scientific nature of the content of education and ideological education [2].

## **3. The Difficulties of Reform and Innovation of Civic Education in Colleges and Universities under the Perspective of Big Data**

### ***3.1. Lack of data governance concepts in the teaching force***

The big data perspective gives new educational paths to the ideological workers in colleges and universities. Big data has a variety of characteristics such as speed, rapidity, etc. At the same time, the search function and information integration function of big data can improve the completeness and scientificity of information. For the use of big data, college ideological workers need to have the ability to operate computers. In addition, it is necessary to improve the educational content in combination with the educational content, student development and so on. However, due to the influence of traditional education concepts, although college ideological workers have a certain understanding of big data, but lack of its reasonable introduction into the ideological education, hindering the innovation of teaching methods, but also affects the role of big data in the ideological education.

### ***3.2. Educational change lacks the support of big data***

Big data provides a new educational approach to the ideological education programme in colleges and universities. As the lecturer of the ideological education programme, the ideological workers in colleges and universities need to have big data thinking, and use big data to overcome the traditional single-type and one-sided education methods, so as to change the current education status quo [3]. Due to the influence of traditional education concepts, at the same time, college and university ideological and political workers need to master certain big data operation skills, learn to use big data to integrate educational resources and improve the quality of educational content. However, in the ideological education, most workers still have not reasonably adopted big data.

## **4. Countermeasures for Reform and Innovation of Ideological and Political Education in Colleges and Universities under the Perspective of Big Data**

### ***4.1. Embodying big data thinking and enhancing awareness of information technology in education***

The emergence of the era of big data has led to the separation of the real world from the "virtual space". "In the virtual space, the information is complicated, instantly updated and rapidly changing, which affects the formation of students' ideological and political concepts. With the addition of education, college students have thoughts, consciousness, and more desire to explore information and things [4]. At the same time, the thinking of students in colleges and universities is more active, the ability to accept new things is stronger, easier to accept big data as a "new thing". Because of this, it is easy to shake the original values, resulting in cognitive ambiguity and other issues.

In the era of big data, with the help of cloud computing and cloud analysis, the rapid integration of information can be achieved. Civics educators in colleges and universities should learn to use big data to collect students' interests and hobbies, "accurate portrait", and promote the reform and innovation of education. Taking the "Objectivity, Absoluteness and Relativity of Truth" in the "Introduction to the Fundamental Principles of Marxism" as an example, firstly, college political educators should integrate big data into the preparation of lessons, classes, homework assignments, etc., and combine students' interests with their hobbies and preferences, and give students more voice through discussion, free cooperation and free expression of opinions. Secondly, college ideology workers should also carry out

personalised teaching, such as how to interpret the objectivity of the truth, the relationship between truth and fallacy, etc., and reasonably select educational resources in accordance with students' psychological characteristics, so as to realise the combination of "individual" and "holistic" education[5]. The combination of "individual" and "holistic" education is realised [5]. In addition, from the essence of water, education is the dissemination of knowledge, is the process of information conversion, is the combination of teachers teaching, students learning. By incorporating the "objectivity, absoluteness, and relativity of truth" education, civic educators in colleges and universities can effectively use big data to transcend the limitations of traditional teaching methods regarding time and place. This approach allows for the linkage of past, present, and future events, and guides students in analyzing the truth and principles of a given concept, while illustrating how they may change through different stages. Through the use of big data, this method overcomes the restrictions of stereotypical teaching and promotes greater awareness of information technology in education.

#### ***4.2. Establishing Big Data Thinking to Enhance Civic Education Informatisation***

In the era of big data, the connection between information has become closer, and the association between information has become more important; in the era of big data, it not only enriches the kinds of information and increases the quantity of information, but also provides powerful and rapid information analysis and calculation ability; in the era of big data, the whole body will be affected by a single hair and the problem has become complicated; based on the reform and innovation of the Civic Education in colleges and universities from the perspective of big data, the association thinking should be applied to make clear the contents and links between information; innovative thinking should be applied to explore new ways to solve problems; systematic thinking should be applied to improve the information level of Civic Education and achieve the educational change in a truly meaningful way. The reform and innovation of civic education in colleges and universities based on the perspective of big data should use the correlation thinking to clarify the connection between each content and information, should apply the innovative thinking to explore new ways to solve the problems, and should use the systematic thinking to improve the informatisation level of the civic education in the real sense and to achieve the change of the education from the overall perspective [6].

Taking the formation of "Mao Zedong Thought" in "Introduction to Mao Zedong Thought and Socialism with Chinese Characteristics" as an example, firstly, Civic Education workers in colleges and universities use the correlation thinking to link Mao Zedong Thought, Deng Xiaoping Theory, the Scientific Outlook on Development, and the theory of Socialism with Chinese Characteristics in the New Era, and make PPTs with the use of WPS and Word, so that students can have a clearer understanding of the theory. The use of PPT can help students gain a clearer understanding of the social background and significance behind the formation of different ideas, ultimately facilitating their in-depth comprehension of various concepts. Secondly, the ideological educators in colleges and universities use innovative thinking and the power of big data to reform and innovate the teaching methods, such as recording micro-teaching resources to change the traditional way of textbook pre-study; For example, the implementation of a flipped classroom model further emphasizes the educational content of this lesson, and allows students to learn with a clear purpose while breaking away from traditional teaching methods; Another example is the requirement for students to submit online assignments and record videos, which aims to transform the traditional approach of assigning and completing tasks. Finally, college educators of ideology and politics use systematic thinking to guide students to analyse the problem as a whole, to understand the significance of Mao Zedong Thought's formation, development, maturity, inclusion in the Party Constitution, and becoming the guiding ideology of the country, and to form their own systematic understanding [7].

#### ***4.3. Optimising the big data environment and reforming the way of Civic Education***

In the era of big data, students are able to receive and understand more information in a short period of time, which is not only a manifestation of the massive amount of information, diversification and rapidity of information under big data, but also an important way to increase students' understanding of various events in society. In the big data environment, students need to have the ability to identify things that are good or bad, to be firm in their ideals and beliefs, and to resist the intrusion of external ideologies. Civic education workers in colleges and universities need to help students filter and eliminate poor quality information to make up for the shortcomings of students' ideological level, so that students can grow up better, become successful, and become mentally mature young people in the new era.

For example, for students' network education, first of all, college ideological educators should take the current big data as an entry point and ask questions: "What kind of changes has the arrival of the big data era brought to our life, learning and thinking? How to understand that big data is a double-edged sword issue?" Thus, students will be able to look at the problem from a comprehensive and dialectical point of view. Secondly, by incorporating the "ideological and moral cultivation and legal foundation" into the content of ideological and political education, students can gain a comprehensive understanding of the potential benefits and drawbacks of big data. This is achieved through the use of typical cases such as "telecom fraud" and examples of excellent cases that demonstrate how big data can promote innovation and development. It is important for students to recognize that big data is a double-edged sword and there are inherent risks associated with it [8]. Additionally, it is crucial to explain that cyberspace is not a lawless place and that violating the law, such as stealing someone's privacy or publishing inappropriate speech, will not go unpunished. Afterwards, the college ideologues use these cases to guide students to reflect and improve their ability to recognise good and bad things. Finally, students are given time to explore and summarise freely, so that they can digest the knowledge and improve the integrity of the classroom of Civic Education.

#### ***4.4. Developing Civic Education Classes to Expand the Depth of Civic Education***

In the development of the country, the strong faith of the people of the country and the spirit of national self-improvement are particularly important supporting forces. The essence of ideological education is to reason, and ideological education has a leading role in the development of students, and only by setting up the flag in the hearts of students can they develop better. In the era of big data, the spatial distance between countries shrinks, and the collision of ideologies and political systems is more intense. When carrying out political education in colleges and universities, ideological workers should use the search function of big data, video playback, online video and other ways to guide students to correctly view the differences between Chinese and foreign ideology, politics, economy and other social formations.

For example, for the teaching of Outline of Modern Chinese History, first of all, this book focuses on the eighty years of our country's turbulent history, from the Opium War to the founding of New China, and the relationship between our country and other countries has also changed. As the country suffered from humiliation for decades, and through the party's efforts to establish a new China, college and university ideological workers should be introduced in detail "Lin Zexu, Sun Yat-sen" and a number of other great people's excellent deeds, patriotic spirit and so on to infect the students, stimulate students' patriotic feelings. Secondly, big data can overcome the limitations of time and space, and with its fast search capabilities, it can effectively illustrate the various stages of China's evolving relationships with foreign countries [9]. For example, the Soviet Union has been giving help in the development of our country. Based on learning from the experience of the Soviet Union, it gradually explored the road of socialism with Chinese characteristics suitable for its own development, and also established a socialist country as a result. The similarity of national conditions and the similarity of development concepts have maintained a friendly and allied relationship with the Soviet Union in its modern and contemporary development. Another example is the United States, the first opium war period, the United States is in a wait-and-see attitude, and no substantial invasion of China; and with the promotion of the industrial revolution, the United States is in urgent need of developing overseas markets, join the war of invasion of China, from which the two countries turned into a hostile state. Finally, with the help of big data to further collect the historical materials at that time, students can analyse: "the reasons for the change of the relationship between China and the United States". At the same time, back to the real world, guiding students to analyse why the current relationship between the United States and China in the international community is severe, rising the height of the ideological education. Finally, it is concluded that "the current world is a world of peace, extremism, and authoritarianism will inevitably lead to extinction."

#### ***4.5. Integrate big data channels to improve the integrity of education evaluation***

The evaluation of Civic and political education not only includes the acceptance degree and learning achievements of students, but also includes the educational methods, educational concepts, and teaching wit of university Civic and political workers. Civic and political education involves diversified contents, which need to be analysed and integrated from multiple perspectives in order to improve the accuracy of the data. For this reason, when college workers carry out Civic Education, they should take the initiative to use the information integration and analysis ability of big data to

improve the completeness and scientificity of the information chain, to overcome the traditional one-dimensional and one-sided evaluation methods, and to improve the completeness of educational evaluation.

Educational evaluation includes two main subjects, namely, the ideological workers in colleges and universities and the educational objects: for the evaluation of the ideological educators in colleges and universities: first of all, colleges and universities should cultivate and instruct the ideological workers in the use of big data according to the actual situation, and observe whether or not it is standardised for the use of big data by the ideological workers, and input the performances of the ideological workers into the information database. Improve the institutional mechanism in combination with the school situation. Secondly, to understand the legal awareness and ideological and moral level of the ideological and political workers in colleges and universities, this content is also an important part of the ideological and political education. The legal awareness and moral level of the ideological and political educators in colleges and universities will affect the development of students and the quality of education. Attaching importance to the evaluation of the ideological and political educators in colleges and universities can serve to urge them to continuously purify their own ideological culture and improve their legal awareness [10]. For the evaluation of the education object: first of all, the college ideological workers should take the initiative to use big data as a support to improve the completeness and scientificity of education evaluation. For example, students' classroom performance, moral performance, and cognition are recorded in the file. Secondly, as an education object, it should take the initiative to reflect and actively put forward opinions, such as whether the education evaluation includes daily life status, heart health level and so on, which will be integrated in the big data platform to improve the efficiency and comprehensiveness of education evaluation.

## 5. Conclusions

In conclusion, the arrival of the era of big data not only empowers the reform and innovation of ideological education in colleges and universities, but also gives high ideological and political workers a new educational pathway, ideological and political workers should take the initiative to learn the skills of using big data, applying big data to integrate educational resources, meet students' interests and hobbies, and enhance the effect of education. As the target of education, they should learn to use the dialectical viewpoint to look at big data, analyse the problems comprehensively, overcome the extremism and one-sidedness; stick to the original heart and firmly believe; listen attentively to the guidance and education of the ideological educators, and improve the understanding of theoretical knowledge, so as to improve the quality of education and smoothly promote the reform and innovation of the ideological education curriculum.

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