The application of artificial intelligence in college ideological and political education

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Abstract. In the innovation and development of modern education, based on the theory of artificial intelligence technology to improve the timeliness of ideological and political education in colleges and universities, formulate a college ideological and political education system in line with the development of The Times, fully show the rich connotation and application value of artificial intelligence, effectively avoid the potential security risks of intelligent technology, and cultivate more outstanding talents for social construction. Based on the understanding of the development status of artificial intelligence and ideological and political education in colleges and universities, this paper starts from the perspective of the application of artificial intelligence technology, deeply discusses the ideological and political education system in colleges and universities in the new era, and defines effective measures for practical development, so as to improve the level of ideological and political education in colleges and universities.

Keywords: Artificial intelligence; Colleges and universities; Ideological and political education; Learning situation recognition.

1. Introducion

Since the Dartmouth Society first proposed the concept of artificial intelligence in the mid-1950s, after decades of research, innovation and development, the technical theory of artificial intelligence has had a profound impact on the production and life style of human society. From the perspective of overall development, although scholars around the world have conducted in-depth research on artificial intelligence, no universally recognized authoritative academic definition has been put forward, and different research and application fields have different understandings. For example, American AI experts once regarded AI as a discipline, which is mainly used to acquire and use knowledge. Some scholars regard artificial intelligence as replacing intelligent work done by humans. Although each scholar has a different definition of artificial intelligence, they all contain the fundamental ideas of computer simulation, artificial system and human intelligence activities. According to the definition proposed by various scholars, it can be found that the academic circle has a very consistent understanding of artificial system, which refers to the artificial system created by human beings.[1-3]

Therefore, in the development of educational reform, artificial intelligence, as the commanding height of the newest frontier branch of information technology, contains theoretical knowledge of logic, behavior, statistics, computer science and other theories, which provide effective basis for ideological and political education reform in colleges and universities in the new period. From the perspective of ideological and political education implementation in modern colleges and universities, the integrated application of artificial intelligence technology theory has the following values: first, it can improve the timeliness of ideological and political education. Under the development trend of economic globalization, the free competition mechanism has exerted great influence on individual interests and psychology. Western social ideology and social economic transformation have gradually changed the life values of some young students, which has brought severe challenges for the ideological and political education in colleges and universities. The integrated application of artificial intelligence in ideological and political education guidance can provide students with fragmented learning content and diversified learning methods, guide them to establish a complete knowledge system, and ultimately help teachers to understand students' state of mind; Secondly, it can optimize the innovation requirements of ideological and political education

in colleges and universities. The ideological and political education of college students as a systematic project will start from many aspects of collaborative innovation. Compared with the implementation of ideological and political education in primary and secondary schools, ideological and political education in colleges and universities has the characteristics of uncontrollable virtual space, school social conflict, school and family significance, and these factors will directly affect the implementation effect of ideological and political education. The direct introduction of artificial intelligence system can not only improve the ideological and political education engineering system in colleges and universities, but also effectively integrate the professional knowledge of Marxism, philosophy and social sciences, natural sciences and other disciplines, so that students can make full use of various educational resources while establishing correct life values. Finally, we can inherit and spread Marxist educational theory. In the construction and development of the socialist road with Chinese characteristics, Marxist educational theory is not only the basic basis of practical education work, but also the basic content of theoretical exploration and innovation. The integration of artificial intelligence represented by 5G technology into the ideological and political education of colleges and universities can make full use of various social resources after narrowing the space gap between schools and society, and actively cultivate professional talents with all-round development of morality, intelligence, physical fitness, the United States and labor, so as to fully integrate educational resources and educational space, and provide effective basis for educational innovation of colleges and universities in the new era.[4-7]

Therefore, on the basis of understanding the implementation of ideological and political education in colleges and universities in the new era, this paper deeply discusses how to apply the advantage of artificial intelligence technology in ideological and political education in colleges and universities, according to the basic ideas and technical means of artificial intelligence, to accelerate the pace of our college education reform.

2. Method

Based on the analysis of the implementation framework of ideological and political courses in colleges and universities with artificial intelligence as the core as shown in the figure below, the overall framework can be divided into six modules according to the steps of educational design and the implementation process of activities. The specific contents are as follows:[8-9]
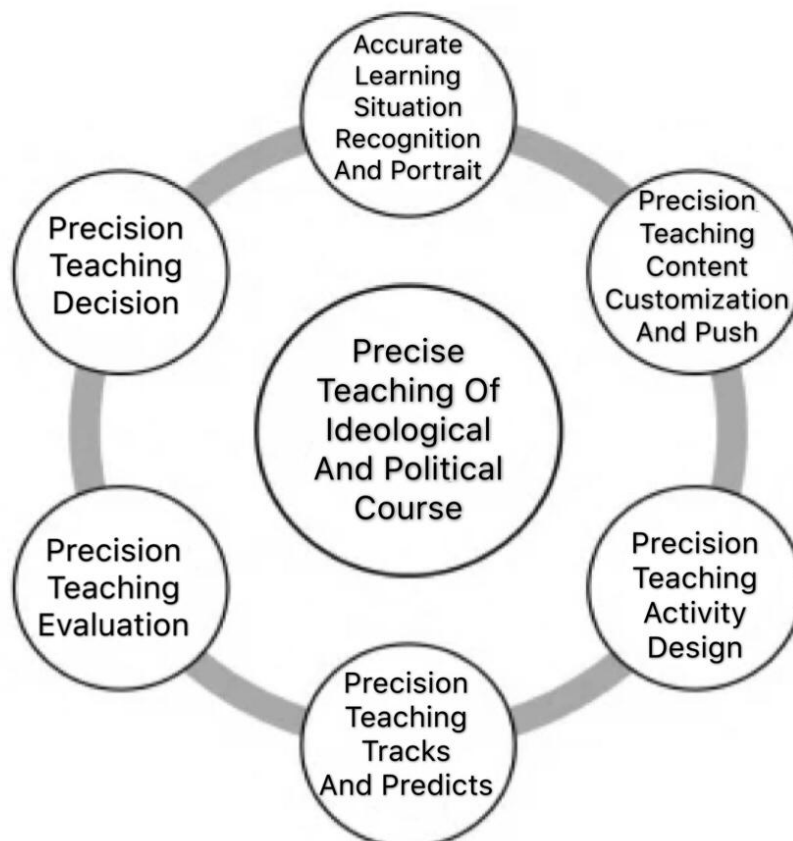
Figure 1. Framework of Ideological and political curriculum implementation in colleges and universities based on artificial intelligence

First, accurate learning situation recognition and portrait. This module design can provide a basis for promoting ideological and political education in colleges and universities. In learning piano identification, it is not only necessary to understand professional students' knowledge structure, learning style, character preferences, etc., but also to clarify their ideological and behavioral development characteristics and main trends, quickly judge students' ideological appeals and theoretical basis, and accurately identify students' acceptance and expression characteristics. Therefore, basic data of student groups should be mined according to the process shown in Figure 2, including age, gender, major grade, political status, etc., and then students' learning behavior data and daily behavior data should be analyzed to provide reference for studying their learning behavior. At the same time, on the basis of understanding the ideological data of college students, we should make use of emotional analysis, semantic analysis and other ways to clarify the hidden ideological dynamics and emotional needs of students.[10-13]
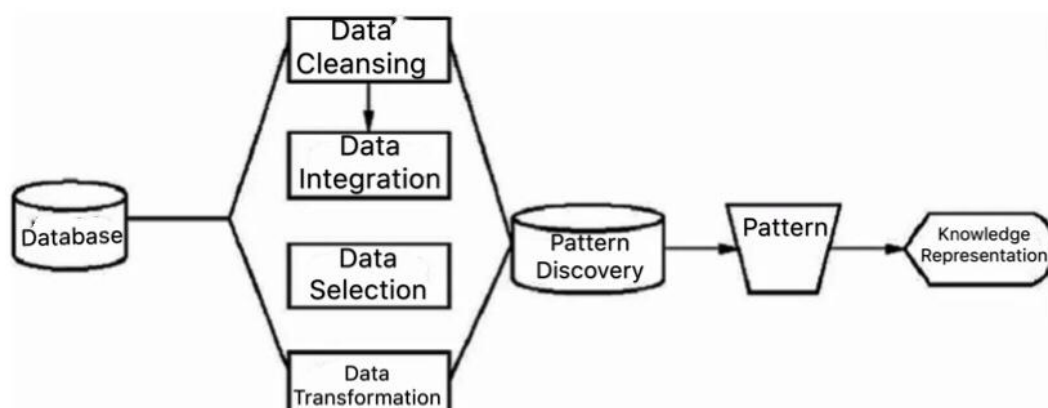
Figure 2 Flow chart of data mining

Second, precision teaching content customization and push. In the design of this module, the corresponding teaching content is quickly developed and pushed according to the learning characteristics of students. For example, after understanding the knowledge of different students, the module pushes teaching content of different difficulty levels to them, and provides teaching content of different representation forms according to their learning interests. It should be noted that when formulating and pushing teaching content, the first thing to do is to ensure the compatibility of pushing content, the second thing to show the pertinence of pushing content, and the last thing to enhance the interest of educational content. The ideological and political education system in colleges and universities with artificial intelligence as the core can directly penetrate into the classroom in the form students like, fully mobilize their interest in learning, and comprehensively improve their learning level. In the process of customized push, teaching content should also be classified according to students' cognitive dimension or learning attitude. Common AI recommendation algorithms include content recommendation, user collaborative recommendation and association rule recommendation. According to the analysis of the flow chart of content recommendation shown in Figure 3 below, this method will integrate the research of teaching content and students' learning situation, and then conduct recommendation analysis according to the matching degree between the two.[14-15]
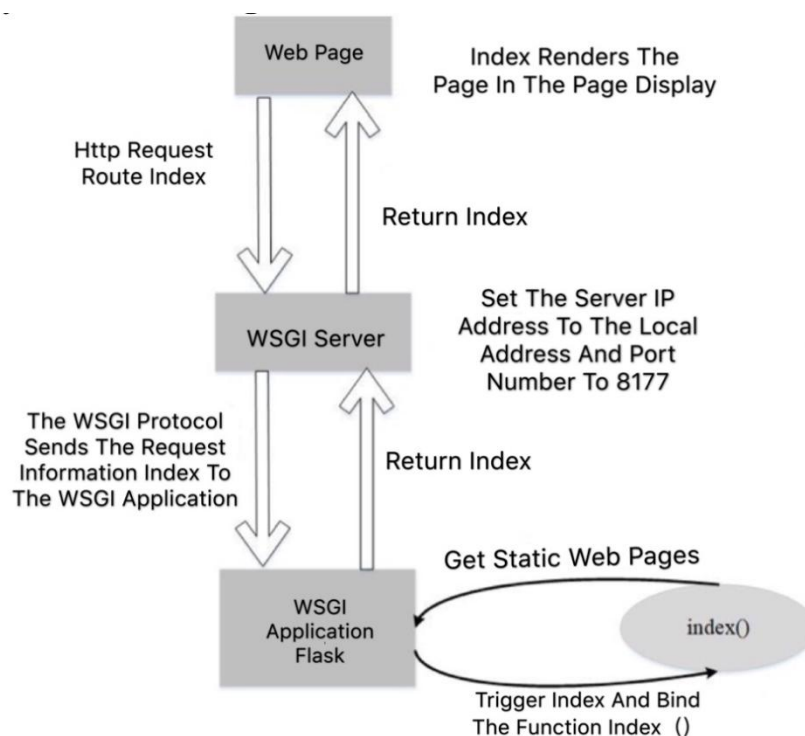

Figure 3. Content-based recommendation flow chart

Third, precision teaching activity design. The design of this module mainly considers the differences of individual students and provides them with a variety of teaching activities. First of all, after understanding the personality characteristics of college students, teachers should comprehensively consider the influence factors of students' learning support, interaction preference, learning preference, major category, and so on, use data mining algorithm to accurately analyze their interests and hobbies, and then reflect the differences in majors and personalities during the activity design. Secondly, the activity design should conform to the phased goals of ideological and political education in colleges and universities, and show the differences of activities in different stages of education. The specific content includes reflection evaluation, interactive sharing, interactive discussion, guidance and inspiration, and other types. Finally, teaching activities should scientifically deal with the relationship between collective education and individual teaching, and

carry out heterogeneous dynamic grouping and individualized teaching guidance according to the differences of students mastered by practical investigation, so as to ensure that practical activities can meet the learning needs of each student.

Fourth, learn to track and predict accurately. This module is designed to accurately monitor the learning status of the student group, predict and analyze the future learning behavior and specific performance. In the ideological and political education of colleges and universities, the application of accurate learning tracking and forecasting is reflected in two aspects. On the one hand, it refers to the dynamic tracking and evaluation of students' learning state, identifying and analyzing the hidden learning risks; On the other hand, it means to monitor students' irregular behavior during the study period, so as to facilitate teachers' timely intervention.

Fifth, precision teaching evaluation. In the traditional sense, the evaluation of ideological and political teaching in colleges and universities is mainly based on regular visits and final exams, and the evaluation methods are relatively simple. However, the application of artificial intelligence can collect and analyze the implementation process of ideological and political teaching in the whole cycle, which is convenient for teachers to comprehensively evaluate students' learning status and carry out targeted teaching evaluation. Combined with the analysis of precision teaching evaluation system shown in Figure 4 below, we can see that it is necessary to select diverse evaluation subjects, combine group evaluation, independent evaluation, mutual evaluation, teacher evaluation and other ways, and then integrate the quantitative evaluation and qualitative evaluation supported by artificial intelligence, and finally analyze students' learning outcomes from a multi-dimensional perspective.
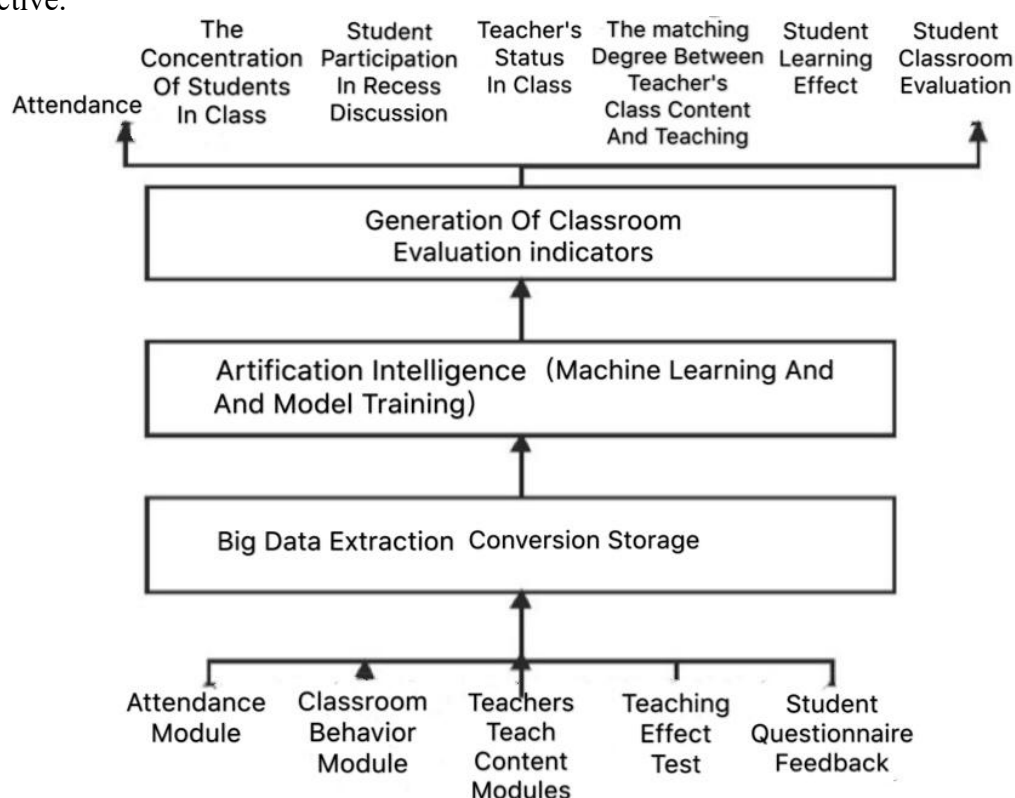
Figure 4 Precision teaching evaluation system based on artificial intelligence

3. Result analysis

After clarifying the main contents of the integrated development of artificial intelligence and ideological and political education in colleges and universities, the system architecture as shown in Figure 5 is constructed, and according to the requirements of educational innovation and development in colleges and universities in the new era, measures for the development of

ideological and political education in colleges and universities with artificial intelligence as the core are analyzed:
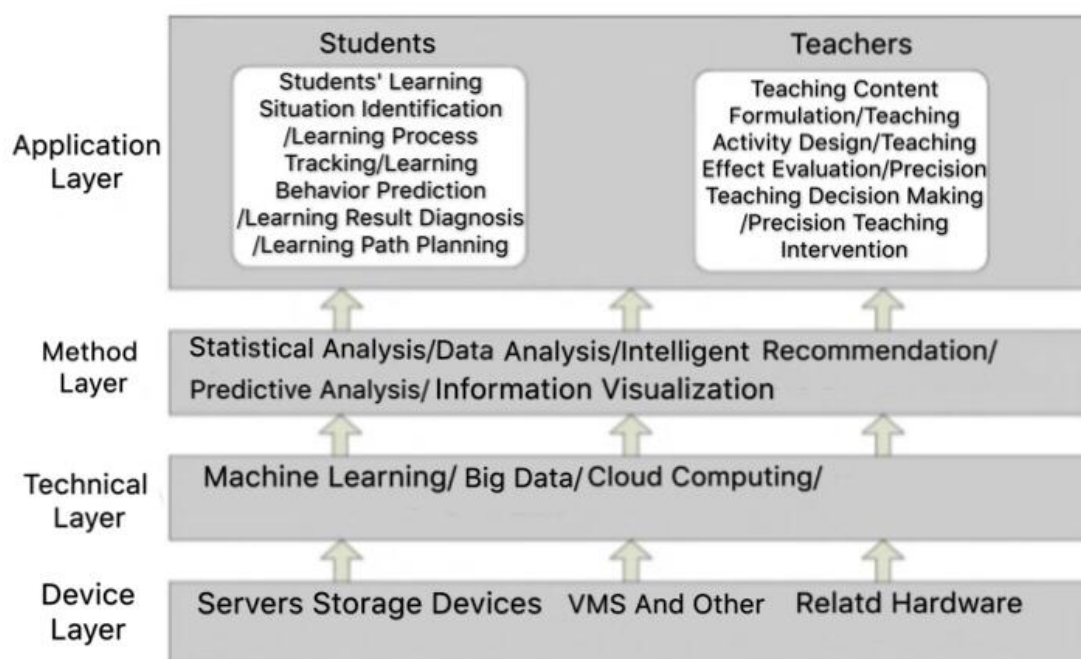

Figure 5 System architecture diagram

First of all, we should break through technological obstacles and improve the timeliness of education. The leapfrog development of artificial intelligence industry and the full integration of education field is the main direction of technological exploration in the new era, which effectively improves the comprehensive level of education management and is a great reform of education industry in the new era. Therefore, the integrated development of ideological and political education and artificial intelligence technology in colleges and universities should be started from two aspects. On the one hand, the deep integration of basic research and development should be strengthened to ensure that artificial intelligence can play an important role in ideological and political education. On the other hand, we should consider the particularity of ideological and political education in colleges and universities, pay attention to the deep integration of educational content with the practical application of artificial intelligence, strictly abide by the principle of student-oriented teaching, and formulate educational programs according to students' learning status.

Secondly, we should use human-computer interaction and cooperation to improve students' ability and quality. In the course of educational innovation and development, artificial intelligence is an effective means of ideological and political education innovation in colleges and universities. The level of professional teachers' application and understanding of artificial intelligence technology directly determines the actual effect of ideological and political education innovation in colleges and universities. Therefore, schools should organize diversified training activities to gradually improve the learning level and ability of professional teachers, so as to ensure the comprehensive and deep integration of ideological and political education and artificial intelligence.

Finally, we should be good at discriminating and choosing to optimize students' learning level. As the main target of ideological and political education in colleges and universities, students already have the ability and consciousness to receive and explore information knowledge independently. Therefore, under the background of artificial intelligence, teachers should guide them to learn to actively adapt to the complex information environment, have the ability to judge the truth and false information, and always keep the right direction in learning and development.

Conclusion

To sum up, as an important basis for the innovation and development of ideological and political education in colleges and universities, artificial intelligence has been difficult to meet the needs of talent training in the new era with the traditional education model. Therefore, ideological and political teachers should, on the basis of understanding the application of artificial intelligence technology means and according to the learning needs of college students, organize and carry out a variety of practical activities, so that ideological and political education and artificial intelligence can be fully and deeply integrated to show more effective education effect.

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