

# Philosophical Reflections on the Role of Artificial Intelligence in Shaping Cultural Values in Ideological Education

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**Abstract:** In the context of the rapid development of artificial intelligence (AI), this paper explores the innovation and optimization of the cultural system of ideological and political education in universities. It begins by analyzing the challenges and opportunities brought by AI to ideological and political education, and systematically expounds the theoretical basis of AI empowerment from the perspectives of educational communication theory, constructivist learning theory, and ideological and political education process theory. Through empirical research and case analysis, the study reveals the current situation of AI application in ideological and political education, including insufficient integration of technology and education, data security risks, and teacher adaptation difficulties. Based on this, the paper proposes three innovative dimensions: concept innovation (student-centered personalized education, human-machine collaborative education, data-driven precision education), content innovation (big data-based content supply, AI-integrated curriculum development, dynamic content system), and method innovation (intelligent interactive teaching, virtual simulation practice, intelligent evaluation feedback). Path optimization strategies are also put forward, including improving teachers' AI literacy, strengthening technological management, and promoting collaborative innovation among schools, enterprises, and society. This research provides theoretical support and practical guidance for promoting the modernization of ideological and political education in the AI era, aiming to cultivate high-quality talents with innovative thinking and social responsibility.

**Keywords:** Artificial Intelligence; Ideological and Political Education; Cultural System Innovation; University Education; Human-Machine Collaboration

## 1. INTRODUCTION

### 1.1 Background and Motivation of the Study

In the wave of global digital transformation, artificial intelligence is profoundly reshaping all fields of human society with its powerful technological power, and the field of education is no exception. With the wide application of artificial intelligence technology in education,

ideological and political education in colleges and universities has ushered in unprecedented opportunities and challenges, which has become an important background and starting point for this research (Liu et al., 2023). From the perspective of the development of the times, artificial intelligence, as an important driving force for a new round of scientific and technological revolution and industrial transformation, has been integrated into all aspects of social life. In the field of education, the application of artificial intelligence technology is driving profound changes in educational concepts, teaching models, learning methods and evaluation systems. According to the 51st Statistical Report on the Development of China's Internet Network released by the China Internet Network Information Center (CNNIC), as of December 2022, the scale of online education users in China reached 544 million, accounting for 51.7% of the total number of Internet users. In the ideological and political education of colleges and universities, the intervention of artificial intelligence has brought new vitality and possibilities to teaching. For example, through the intelligent teaching system, teachers can accurately analyze students' learning data to understand students' learning progress, knowledge mastery and ideological dynamics, so as to achieve personalized teaching and improve the pertinence and effectiveness of teaching. At the same time, artificial intelligence can also integrate rich teaching resources, such as multimedia materials and case libraries, to provide students with a more vivid and diverse learning experience, and enhance the attractiveness and appeal of ideological and political education (Xiaoyang et al., 2021). However, while artificial intelligence brings opportunities to ideological and political education in colleges and universities, it also brings many challenges. From the perspective of educators, teachers are faced with new requirements for improving their teaching capabilities. In the era of artificial intelligence, teachers not only need to have solid professional knowledge and teaching skills, but also need to master certain artificial intelligence technology, and be able to use intelligent teaching tools for teaching design, teaching management and teaching evaluation. Otherwise, teachers may fall into passivity in teaching, unable to take full advantage of AI, and may even be replaced by technology. Some surveys show that some ideological and political teachers in colleges and universities have limited understanding and application ability of artificial intelligence technology, and there are problems such as unskilled technology application and unreasonable teaching design in teaching, which affect the teaching effect. From the perspective of teaching content, the development of artificial intelligence has made the dissemination of information more rapid and extensive, and

various trends of thought and values have stirred each other, which has put forward higher requirements for the content of ideological and political education in colleges and universities. How to screen out the correct and valuable content from the massive amount of information and guide students to establish a correct world outlook, outlook on life and values has become an important issue facing ideological and political education. At the same time, the application of artificial intelligence technology has also brought some new ethical and moral issues, such as data privacy protection, algorithm bias, etc., which need to be discussed and guided in ideological and political education to cultivate students' moral judgment and sense of social responsibility (G. Du et al., 2023). From the perspective of teaching methods, the traditional ideological and political teaching methods are mainly based on teachers' lectures, and students passively accept knowledge. In the era of artificial intelligence, students' access to knowledge is more diversified, and they pay more attention to the autonomy and interactivity of learning. Therefore, ideological and political education needs to explore new teaching methods and make full use of the advantages of artificial intelligence technology, such as online and offline blended teaching, virtual simulation teaching, etc., to meet the learning needs of students. In this context, it is of great practical significance to study the innovation and path optimization of the ideological and political education cultural system in colleges and universities empowered by artificial intelligence. On the one hand, this will help improve the quality and effect of ideological and political education in colleges and universities, and adapt to the requirements of the development of the times. By innovating the cultural system of ideological and political education and optimizing the teaching path, we can give better play to the advantages of artificial intelligence, improve the pertinence, scientific and affinity of ideological and political education, and enhance students' sense of identity and participation in ideological and political education, so as to cultivate talents in the new era with firm ideals and beliefs, noble moral character and social responsibility. On the other hand, it will also help promote the reform of education and teaching and promote the modernization of education. As an important part of education, the reform and innovation of ideological and political education in colleges and universities plays an important leading and exemplary role in the development of the entire education system. By exploring the deep integration of artificial intelligence and ideological and political education, it can provide useful reference for the teaching reform of other disciplines, and promote the innovation of education and teaching mode and the improvement of education quality

(Tang, 2023).

## 1.2 Research Value and Significance

In the context of the profound impact of artificial intelligence on all fields of society, it is of great theoretical and practical value to study the innovation and path optimization of the ideological and political education cultural system of colleges and universities under the empowerment of artificial intelligence, and it is also of far-reaching significance for cultivating talents in the new era. From the perspective of theoretical value, it is helpful to enrich and expand the theoretical system of ideological and political education in colleges and universities. The traditional theories of ideological and political education in colleges and universities are facing new challenges and opportunities in the era of artificial intelligence, and new elements can be injected into the theory of ideological and political education by studying the integration of artificial intelligence and ideological and political education. For example, from the perspective of educational psychology, the personalized learning analysis function of artificial intelligence can provide new practical basis and technical support for the theory of teaching students according to their aptitude in ideological and political education. In terms of information communication theory, artificial intelligence has changed the way and speed of information dissemination, and studying its application in ideological and political education can deepen the understanding of the law of information dissemination in ideological and political education and expand the communication theory of ideological and political education. In addition, it can promote the development of interdisciplinary theoretical research. Artificial intelligence is the product of multidisciplinary integration, which is combined with ideological and political education in colleges and universities, involving multiple disciplines such as education, psychology, computer science, and communication. This kind of interdisciplinary research helps to break down disciplinary barriers, promote exchanges and cooperation between different disciplines, and provide new perspectives and ideas for constructing a more complete theoretical system of ideological and political education (Zhang et al., 2023).

From the perspective of practical value, it plays an important role in improving the effectiveness of ideological and political education in colleges and universities. Artificial intelligence technology can accurately analyze students' ideological dynamics and learning situations, help teachers understand students' needs and problems in a timely manner, so as to adjust teaching strategies and improve the pertinence of teaching.

Through big data analysis, teachers can understand students' interests and concerns about different ideological and political education contents, and then optimize the teaching content to make teaching closer to students' reality. At the same time, it is helpful to innovate the teaching methods and means of ideological and political education in colleges and universities. The use of artificial intelligence intelligent teaching system, virtual simulation technology, etc., can provide students with a richer and more diverse learning experience, stimulate students' interest and enthusiasm in learning. Taking virtual simulation technology as an example, students can experience historical events and social phenomena through virtual reality scenes, and enhance their understanding and perception of the content of ideological and political education. It can also promote the optimal allocation of ideological and political education resources in colleges and universities. Artificial intelligence can integrate all kinds of ideological and political education resources, break the situation of scattered resources, and realize the sharing and efficient use of resources.

Through the intelligent recommendation system, students can obtain learning resources that are more in line with their own needs and improve learning efficiency (G. Du et al., 2023). Starting from the significance of cultivating talents in the new era, it is conducive to cultivating students' innovative thinking and practical ability. In the era of artificial intelligence, innovative thinking and practical ability are essential qualities for talents in the new era. Through the introduction of artificial intelligence technology, ideological and political education in colleges and universities can provide students with a more open and innovative learning environment, and encourage students to actively explore and innovate. In the process of learning with artificial intelligence, students need to constantly think about how to use technology to solve problems, which helps to develop their innovative thinking and practical skills. At the same time, it helps to improve students' information literacy and digital skills. With the rapid development of information technology, information literacy and digital capabilities have become an important part of talent competitiveness. The integration of ideological and political education and artificial intelligence in colleges and universities can enable students to learn ideological and political knowledge while contacting and mastering advanced information technology, improve their ability to obtain, analyze and apply information, and lay a solid foundation for their future development. It also has a positive impact on the development of students' sense of social responsibility and moral character. By combining artificial intelligence technology with ideological and political education, we can better guide

students to establish a correct world view, outlook on life and values, and cultivate their sense of social responsibility and moral character. In the process of learning artificial intelligence-related knowledge, students can understand the ethical and moral issues brought about by the development of technology, so as to enhance their moral judgment and sense of social responsibility, and become talents with noble moral qualities in the new era (Wang, 2021).

## 2. CONCEPTUAL ELABORATION AND THEORETICAL BASIS

### 2.1 Definition of core concepts

#### 2.1.1 Theories of Educational Communication

Educational communication considers education as a special kind of information dissemination activity, which covers the key elements of educators, educated, educational information, educational media, etc. In the process of artificial intelligence empowering ideological and political education, the theory of educational communication plays an extremely important supporting role. From the perspective of the coding and dissemination of educational information, artificial intelligence technology can deeply analyze and recode the content of ideological and political education by virtue of its powerful algorithm and data analysis capabilities. For example, it can transform complex ideological and political theoretical knowledge into vivid images, videos or interactive multimedia content, with the help of intelligent media platforms, such as intelligent teaching software, online education platforms, etc., to break through the limitations of traditional communication channels, according to the personalized characteristics and learning habits of students, accurately push ideological and political education content, greatly improve the efficiency and effect of information dissemination.

In the traditional teaching mode, it is difficult for teachers to fully understand the information received by each student, but according to the feedback principle in educational communication, artificial intelligence can collect feedback information from students in the learning process in real time, such as students' stay time on knowledge points, frequency of questions, accuracy of answers, etc. After systematic analysis, these data are presented to teachers in an intuitive visual form, helping teachers gain insight into students' learning difficulties and confusion in a timely manner, and then quickly adjust teaching strategies, realize dynamic optimization of the teaching process, and ensure that teaching activities always meet the

actual needs of students (Neuman, 2014).

### 2.1.2 Constructivist Learning Theory

Constructivist learning theory emphasizes the active constructivist of learners, and its core view is that students do not passively absorb knowledge, but actively construct knowledge based on their own existing knowledge and experience system through active interaction with the external environment. In the field of ideological and political education, artificial intelligence technology can give full play to its advantages and create a rich and diverse learning environment for students. Virtual reality (VR), augmented reality (AR) and other technologies are used to create immersive ideological and political learning scenes, so that students can feel as if they are in historical events and social phenomena, and experience and feel the profound connotation of ideological and political knowledge. At the same time, artificial intelligence can also provide massive and diverse learning resources, including various academic literature, case analysis, expert lecture videos, etc., and is equipped with intelligent interactive tools, such as intelligent Q&A systems, online discussion forums, etc. In such an intelligent learning environment, students can set their own learning goals, choose their own learning paths, and carry out in-depth exploration of ideological and political knowledge. In the process of communicating and interacting with virtual learning partners or intelligent tutoring systems, students constantly collide with sparks of thinking and deepen their understanding and mastery of knowledge. For example, when discussing ideological and political hot topics, the intelligent tutoring system can guide students to think about problems from different angles, help students sort out their ideas, gradually realize the active construction of knowledge, effectively improve the effect and ability of ideological and political learning, and cultivate students' independent thinking and problem-solving literacy (Hein, 1991).

### 2.1.3 Theory of the Process of Ideological and Political Education

The process of ideological and political education is a process in which educators exert educational influence on the educated in a purposeful, planned, and organized manner in accordance with the ideological and political requirements of a certain society and the laws governing the formation and development of the ideological and moral character of the educated, so as to promote the ideological contradictions in the hearts of the educated, and finally form the ideological and moral character that

conforms to certain social expectations. Entering the era of artificial intelligence, this theory has ushered in a new opportunity for development. With the help of artificial intelligence technology, educators can use big data analysis and machine learning algorithms to gain more accurate insight into students' ideological status and psychological characteristics through multi-dimensional data collection, such as students' online behavior data, academic performance data, psychological assessment data, etc. For example, by analyzing students' speech tendencies on social media and their preference for various types of information, we can understand students' potential ideological dynamics. Use the data collected by psychometric assessment software to assess students' psychological stress, emotional state, etc. Based on these accurate analysis results, educators are able to tailor personalized educational programs for each student, carefully select educational content, and skillfully design educational activities to optimize the process of educational impact. In this way, educators will be able to better follow the law of the formation and development of students' ideological and moral character, carry out ideological and political education in light of the characteristics and needs of different students, significantly improve the pertinence and effectiveness of ideological and political education, and help students realize the healthy development of ideological and moral character on the right track (Liu et al., 2023).

### 3. REVIEW OF THE CURRENT SITUATION OF THE IDEOLOGICAL AND POLITICAL EDUCATION AND CULTURAL SYSTEM OF COLLEGES AND UNIVERSITIES EMPOWERED BY ARTIFICIAL INTELLIGENCE

#### 3.1 Research on the Current Application Status

This survey aims to comprehensively understand the application of artificial intelligence in ideological and political education in colleges and universities across the country. The questionnaire was distributed through a combination of online and offline methods, covering the application of artificial intelligence technology in ideological and political teaching, teachers' mastery and application ability of artificial intelligence technology, and students' acceptance and feedback on intelligent ideological and political teaching. At the same time, some colleges and universities were selected to conduct on-site interviews, and conducted in-depth exchanges with ideological and political teachers, teaching administrators and student representatives to further obtain detailed information to ensure the



comprehensiveness and accuracy of the survey data. The survey data shows that most colleges and universities have recognized the importance of artificial intelligence to ideological and political education, and have introduced artificial intelligence technology into teaching to varying degrees (Xiaoyang et al., 2021). For example, some colleges and universities have adopted intelligent teaching platforms to assist teaching, through which course management and homework correction are carried out. However, there are obvious deficiencies in the depth of application, only a few teachers can skillfully use artificial intelligence technology to carry out personalized teaching, and most teachers only use it as a simple teaching tool, failing to give full play to the advantages of artificial intelligence. In terms of student feedback, students' interest in intelligent ideological and political teaching is high, but their satisfaction with the teaching effect needs to be improved, mainly because the teaching content and methods do not well meet the needs of students.

### 3.2 Analysis of Practical Cases

#### 3.2.1 Xiamen University of Technology: A Collection of Cases of Artificial Intelligence Ideological and Political Courses

Xiamen Institute of Technology stands at the forefront of the times, keenly captures the unlimited potential of the integration of artificial intelligence and ideological and political teaching, and makes every effort to build a unique set of artificial intelligence ideological and political course case collection. In specific teaching practice, teachers carefully select social hot cases that are closely related to the pulse of the times and are closely related to artificial intelligence. For example, in the medical field, although AI-assisted diagnosis systems have greatly improved the efficiency of disease diagnosis, ethical issues such as data privacy protection and reliability of diagnostic results have followed. In the field of transportation, the rise of autonomous driving technology has brought about innovation in transportation modes, but it has also caused ethical controversies such as accident liability determination and algorithm bias. Teachers guide students to use the basic principles of Marxist theory to analyze these cases from different perspectives, so that students can concretize abstract ideological and political theoretical knowledge in the process of discussion, so as to deeply understand their connotations. At the same time, the school makes full use of intelligent teaching tools to empower the classroom. The online discussion platform breaks the time and space constraints of the traditional classroom, and students can express their opinions and have heated discussions on cases anytime and anywhere, and the sparks of ideas

continue to bloom in the exchange and collision. The intelligent answering system stimulates students' interest in a gamified way, and students can not only check their learning results in a timely manner, but also deepen their memory and understanding of knowledge in an interesting and interactive process. These measures have greatly enhanced the interactivity and interest of teaching, fully mobilized students' subjective initiative, and significantly improved students' learning enthusiasm and classroom participation (Xia, 2017).

### 3.2.2 Tianjin Chengjian University: "Artificial Intelligence + Ideological and Political Courses" Whole Chain Integrated Smart Teaching

Tianjin Chengjian University is committed to building a comprehensive and in-depth "artificial intelligence + ideological and political course" full-chain integrated intelligent teaching system. At the level of teaching resource construction, the school accepts all kinds of ideological and political education resources, covering classic literature, current affairs news, excellent cases and other forms. With the help of advanced artificial intelligence technology, the massive resources are accurately classified, and the different themes and knowledge points of the ideological and political courses, as well as the learning needs and cognitive levels of students are screened and recommended, so as to provide rich and adapted teaching materials for teachers to carry out teaching activities, and also build a convenient and efficient resource acquisition platform for students' independent learning, so as to truly realize teaching and accurate teaching according to their aptitude. In the teaching process, the school introduces intelligent teaching equipment, such as intelligent interactive large screens, classroom feedback devices, etc., to achieve real-time interaction in the classroom. Students can instantly feedback learning questions, participate in class polls, and share opinions through the device, and teachers can quickly capture students' feedback and adjust the teaching rhythm and methods in time. At the same time, these devices can also automatically collect classroom data, including the number of times students speak, how often they interact, how well they answer questions, and more. Through in-depth analysis of these data, teachers can clearly understand students' learning progress, weak links in knowledge mastery, and learning behavior habits, and provide a strong basis for the implementation of personalized teaching. According to the data, it should be targeted to meet the learning needs of different students. In the teaching evaluation process, Tianjin Chengjian University adopts an intelligent evaluation system, which conducts a comprehensive evaluation of students from multiple

dimensions. It not only focuses on students' learning outcomes, such as test scores and the quality of assignments completed, but also focuses on students' learning process, including classroom participation, group performance, learning attitude, etc. Through the integration and analysis of various data through intelligent algorithms, an objective and scientific evaluation report is generated, which provides a reference for teachers to optimize teaching strategies and students to improve learning methods, effectively improves the teaching quality of ideological and political courses, and promotes the development of ideological and political education in the direction of high quality and refinement (Yin, 2021).

### 3.3 Problem Exploration

Although artificial intelligence technology has been applied in ideological and political education in colleges and universities, most of them are only superficial. On the one hand, some teachers have limited understanding and mastery of artificial intelligence technology, and cannot deeply integrate it with ideological and political teaching content, resulting in the application of technology in more form than in content. For example, when some teachers use the intelligent teaching platform, they simply move the traditional teaching content online, and fail to make full use of the platform's intelligent analysis, personalized recommendation and other functions. On the other hand, the concept of education and teaching has not been changed in time, and some teachers still follow the traditional indoctrination teaching mode, and do not give full play to the advantages of artificial intelligence in promoting students' independent learning and personalized learning, so that the integration of technology and education has failed to achieve the expected results (Xiaoyang et al., 2021). With the application of artificial intelligence in ideological and political education, data security and ethical issues have become increasingly prominent. In the process of data collection, some colleges and universities may over collect students' personal information, and lack effective security measures for data storage and management, which can easily lead to student data leakage. In addition, AI algorithms may be biased, which may affect the recommendation of teaching resources, the fairness of student evaluations, etc. For example, algorithms may misjudge certain groups of students due to data bias, which can affect educational equity. At the same time, when using artificial intelligence for teaching, it may also face ethical risks such as privacy infringement and misleading information, which do not seriously affect the healthy application of artificial intelligence in ideological and political education (Xiaoyang et al., 2021). In the era of artificial

intelligence, ideological and political teachers are faced with many adaptation and development difficulties. First of all, the technical ability of teachers is insufficient, and most teachers lack systematic training in artificial intelligence technology, are relatively unfamiliar with the application of emerging technologies, and are difficult to skillfully use intelligent teaching tools to carry out teaching activities. Secondly, it is difficult to change the role of teachers, and the role of teachers as knowledge transmitters in traditional teaching needs to be changed to learning guides and ability cultivators in the era of artificial intelligence, but some teachers have failed to adapt to this role change in time, and are still self-centered in teaching, ignoring the main position of students. In addition, teachers may have occupational anxiety in the face of the changes in teaching mode brought about by artificial intelligence, which affects the enthusiasm and innovation of teaching work (Dong & Dong, 2023).

#### 4. THE INNOVATIVE DIMENSION OF ARTIFICIAL INTELLIGENCE EMPOWERS THE IDEOLOGICAL AND POLITICAL EDUCATION AND CULTURAL SYSTEM OF COLLEGES AND UNIVERSITIES

##### 4.1 Concept Innovation: Establish a New Concept of Intelligent Ideology and Politics

###### 4.1.1 Student-Centered and Individualized Education

Under the deep empowerment of artificial intelligence, ideological and political education in colleges and universities urgently needs to comprehensively establish a student-centered personalized education concept. With the strong support of big data analysis technology, colleges and universities can dig deep into each student's interests and hobbies, accurately grasp their learning style, and have a keen insight into ideological dynamics. For example, by analyzing students' browsing records, likes and favorites on various learning platforms, we can clearly understand their interests. With the help of the learning time recorded by the learning management system, the learning time and other information can accurately determine the learning style of students, whether they prefer visual learning, auditory learning or practical learning. Based on these in-depth analyses, we tailor a personalized learning plan for students. The intelligent teaching system is like a caring learning steward, which can dynamically monitor students' knowledge according to their learning progress. If students are found to be slightly weak in their understanding of the knowledge of a certain ideological and political course chapter, they

will automatically recommend suitable ideological and political course videos from the massive learning resource library, which may be taught by excellent teachers of different styles to explain the knowledge points from multiple perspectives. It will also push case studies that are closely related to knowledge points, and help students concretize abstract theories through real and vivid cases; At the same time, it provides extended reading materials, covering academic papers, current affairs reviews, etc., to broaden students' knowledge horizons, meet students' personalized learning needs in an all-round way, and effectively improve learning results. In addition, students are actively encouraged to choose their own learning paths that fit their own development according to their own unique characteristics, and in this process, students' independent learning ability and innovative thinking are gradually cultivated, so that students can change from passively accepting knowledge to actively exploring knowledge (Liu & Luo, 2024).

#### 4.1.2 The Concept of Educational Cooperation of Human-Machine Collaboration

In the era of artificial intelligence, teachers and artificial intelligence need to build a close and collaborative relationship. In the new education ecology, teachers are no longer the single and absolute imparters of knowledge, but work hand in hand with intelligent teaching tools to jointly take on the important task of education and teaching. Teachers give full play to their unique advantages in value guidance, and guide students to establish a correct world view, outlook on life and values with profound professional quality and rich life experience. In terms of emotional communication, teachers use warm care and sincere communication to enter the hearts of students and resolve students' confusion in thought. In the process of ideological enlightenment, through ingenious questions and in-depth discussions, students' thinking sparks are stimulated. Artificial intelligence, on the other hand, is efficient and accurate in the field of data processing, which can quickly analyze massive student learning data and explore hidden rules and problems. In terms of knowledge retrieval, the required information is extracted from the huge knowledge database in an instant, providing strong knowledge support for teaching. In terms of personalized learning support, we customize exclusive learning strategies for different students. In the initial stage of the classroom, the intelligent assistant can quickly answer students' frequently asked questions about basic knowledge, such as simple explanations of ideological and political concepts, basic information about historical events, etc., so that teachers

can be liberated from repetitive basic Q&A and focus more energy on guiding students to conduct in-depth thinking and heated discussions. In the discussion session, teachers guide students to discuss complex ideological and political issues, such as the path to achieve social fairness and justice, the choice of moral dilemmas, etc., and the intelligent assistant can record students' views and discussion process in real time, providing data reference for subsequent teaching summaries, realizing the complementary advantages of man and machine, and significantly improving the efficiency and quality of teaching (Yi & Xiao, 2021).

#### 4.1.3 Data-Driven Precision Education Concept

The data-driven concept of precision education emphasizes the comprehensive collection and in-depth analysis of students' learning data with the full use of artificial intelligence technology. In the daily learning process of students, rich and diverse data will be generated, including behavioral data covering students' click tracks on the learning platform, frequency and mode of interaction, etc.; Grade data includes in-class quizzes, assignment scores, test scores, etc.; The feedback data comes from students' evaluations of the teaching content, questions and suggestions (Öztürk, 2017). Through advanced data mining algorithms and data analysis models, these data can be analyzed in depth, which can accurately grasp the learning status of students and accurately locate the problems existing in the learning process. Based on the results of data analysis, teachers clarify teaching objectives and optimize teaching content and methods in a targeted manner. For example, after data analysis, it is found that most students have difficulties in understanding a certain ideological and political knowledge point, such as "the specific practice of socialist core values in contemporary society", teachers can quickly adjust their teaching strategies and add more vivid case explanations from real life, such as telling the successful experience of practicing socialist core values in the surrounding communities, or organizing special discussions to guide students to explore the application of this knowledge point in real life from different perspectives, so as to achieve accurate teaching and effectively improve the pertinence and effectiveness of ideological and political education (Cully & Demiris, 2019).

### 4.2 Content Innovation: Build New Content of Intelligent Ideology and Politics

#### 4.2.1 Accurate Supply of Content Based on Big Data

Make full use of the powerful analysis ability of big data technology to

carry out a comprehensive and in-depth analysis of students' learning needs, interests and social hot topics, so as to achieve the accurate supply of ideological and political education content. Colleges and universities are actively building a resource library of ideological and political education content, which is like a huge treasure house of knowledge, containing a large number of ideological and political education materials. These resources are carefully classified and managed through intelligent algorithms, and accurately labeled according to the theme, difficulty, and applicable objects of the resources. At the same time, it continuously monitors students' behavior data in the learning process, and uses algorithm models to analyze students' interest changes and learning needs in real time. When students are captured showing strong interest in a certain field, such as students who are concerned about the development of science and technology, the system will quickly screen and push ideological and political education content related to artificial intelligence ethics, science and technology and social development from the resource library (Zixuan, 2022). These contents may include the interpretation of cutting-edge academic research results, videos of industry experts discussing the ethical issues of science and technology, and detailed analysis of relevant policies and regulations, so as to help students correctly understand the opportunities and challenges brought about by the development of science and technology from the perspective of ideology and politics. For students who are interested in traditional culture, the system recommends learning materials that integrate traditional culture and socialist core values, such as the correlation analysis between the moral code contained in the classic ancient books and the pursuit of contemporary social values, and the feelings of family and country embodied in traditional folk culture, so that the content of ideological and political education is closely related to the actual situation of students and greatly enhances students' interest in learning (Dong & Dong, 2023).

#### 4.2.2 Development of Ideological and Political Curriculum with Artificial Intelligence Elements

In the process of ideological and political curriculum development, artificial intelligence elements are actively and deeply integrated. On the one hand, the development process of artificial intelligence, from the early concept to today's vigorous development, is clearly presented to students. In-depth explanation of the technical principles of artificial intelligence, so that students can understand the scientific logic behind it; Introduce the application status of artificial intelligence in detail, covering practical

application cases in many fields such as medical care, transportation, and education; At the same time, students are guided to deeply explore the social and ethical issues caused by artificial intelligence, such as the fairness of artificial intelligence decision-making, data privacy protection, etc., and cultivate students' rational cognition of emerging technologies. On the other hand, we should make full use of artificial intelligence technology to innovate the presentation form of courses, such as vigorously developing virtual reality (VR) and augmented reality (AR) ideological and political courses. Taking the VR ideological and political course as an example, by building a highly realistic virtual scene, students can feel historical events and social phenomena immersivity. For example, through VR technology to recreate the scene of the Red Army's Long March, students feel as if they are in the war-torn era, follow the Red Army soldiers through the snow-capped mountains and meadows, and experience the difficulties and dangers on the way of the Long March, so as to have a deeper understanding of the connotation of the spirit of the Long March, which greatly enhances the attractiveness and appeal of the course (J. Du et al., 2023).

#### 4.2.3 Dynamically Updated and Diversified Content System

Efforts should be made to build a dynamically updated and diversified ideological and political education content system. In view of the rapid development of society and the continuous iterative innovation of artificial intelligence technology, the content of ideological and political education must keep pace with the times and be updated in a timely manner to accurately reflect the new changes and new problems of the times. For example, with the wide application of artificial intelligence in the medical field, new problems such as medical data security and algorithmic bias affecting medical decision-making have emerged, which should be quickly incorporated into the scope of ideological and political education to guide students to think and discuss. At the same time, we should vigorously expand the breadth and depth of the content of ideological and political education, in addition to the traditional Marxist theory, ideological and political education and other core content, we should also actively incorporate online ideological and political education, pay attention to issues such as moral norms in cyberspace and online public opinion guidance; Incorporate the content of the international political and economic situation, such as paying attention to the ethical and political issues in the international artificial intelligence technology competition, analyzing the differences and games of different countries in the



development strategy of artificial intelligence, and organically integrating these contents into ideological and political education, so as to cultivate students' global vision and strategic thinking, so that students can better adapt to the complex and changeable international environment (Xu & Wu, 2024).

#### 4.3 Method Innovation: Explore New Methods of Intelligent Ideology and Politics

##### 4.3.1 Intelligent Interactive Teaching Methods

With the help of intelligent equipment and software, the intelligent interactive teaching platform has brought new vitality to ideological and political teaching. For example, the real-time interactive features of the online teaching platform give teachers the flexibility to organize students for class discussions. In the discussion session, teachers threw out enlightening ideological and political questions, such as "how to balance individual interests and collective interests in contemporary society", students can express their views through text, voice and other ways, and the online platform can display students' speeches in real time, and support students to like and comment on each other, creating a lively discussion atmosphere.

Teachers can also use the platform's group collaborative learning function to divide students into several groups and assign group tasks, such as jointly completing a research report on "Ideological and Political Elements in the Construction of Campus Civilization". Each group communicates and collaborates through online collaboration tools, such as online documents, video conferences, etc. At the same time, teachers can use smart teaching tools to post questions, organize polls, and carry out activities such as rush answers to stimulate students' interest and participation in learning. For example, when explaining ideological and political theoretical knowledge, teachers release multiple-choice questions through intelligent teaching software, students answer in real time on smart devices, and the system automatically counts the answers and quickly feedback students' mastery of knowledge points. In addition, intelligent speech recognition and natural language processing technology are used to achieve more natural and smooth communication and interaction between teachers and students. Students can ask questions to the intelligent teaching assistant through voice, such as asking "what are the core viewpoints of Marxism", and the assistant will give accurate answers in real time based on a powerful knowledge database and intelligent algorithms, which greatly improves learning efficiency (Zixuan, 2022).

#### 4.3.2 Virtual Simulation Practice Teaching Methods

The use of virtual simulation technology to carry out ideological and political practice teaching has successfully broken through the time and space limitations faced by traditional practice teaching. By building a virtual simulation practice teaching platform, colleges and universities carefully create practical scenarios closely related to ideological and political education. Taking the mock court scene as an example, students play the roles of judges, prosecutors, lawyers, and parties, and conduct trials and debates on mock cases in accordance with relevant laws and regulations and ideological and political theories, in which students deeply understand the spirit of the rule of law and the connotation of fairness and justice. In the simulated community research scenario, students use the ideological and political knowledge they have learned in the virtual community environment to design research questionnaires, carry out field visits (virtual form), collect the opinions and suggestions of community residents on community construction and social governance, and use data analysis methods to sort out and analyze, put forward improvement plans, and exercise their ability to solve practical problems. Another example is the simulation of enterprise internship scenarios, in which students understand the operation and management mode of the enterprise in the virtual enterprise, analyze the relationship between the enterprise in the performance of social responsibility and the construction of corporate culture and ideological and political education, and improve the application ability of ideological and political theoretical knowledge and social practice ability (Rong & Gang, 2021).

#### 4.3.3 Intelligent Evaluation and Feedback Methods

Establish a comprehensive, objective and timely intelligent evaluation and feedback system to monitor and evaluate students' learning in an all-round way. Using artificial intelligence technology to data on students' learning process, including classroom participation, learning time distribution, interaction frequency, etc.; Completion of homework, including the quality of homework, completion time, answering ideas, etc.; Comprehensive analysis of test scores, from score scores to score distribution of each knowledge point. Through complex data analysis models, detailed and accurate learning evaluation reports are generated. The evaluation report not only visually presents the evaluation of students' learning outcomes, such as grade level, knowledge mastery, etc., but also deeply analyzes the strengths and weaknesses of students in the learning process, such as finding that students have excellent logical thinking ability,

but lack in the comprehensive application of knowledge. At the same time, based on the analysis results, students are provided with personalized learning suggestions, such as for the problem of insufficient comprehensive application of knowledge, it is recommended that students participate in case analysis and discussion, and sort out and construct knowledge system. In addition, through the intelligent feedback system, the evaluation results are fed back to students and teachers in a timely manner. Based on the feedback, students can clarify the direction of improvement in their own learning and adjust their learning methods. Based on the feedback, teachers flexibly adjust their teaching strategies, such as redesigning teaching sessions and supplementing teaching content in response to students' common problems, so as to achieve mutual learning in teaching.

## 5. OPTIMIZATION OF THE PATH OF ARTIFICIAL INTELLIGENCE TO EMPOWER THE IDEOLOGICAL AND POLITICAL EDUCATION AND CULTURAL SYSTEM OF COLLEGES AND UNIVERSITIES

### 5.1 Improve the Intellectual Literacy of Teachers and Build a High-Quality Teaching Team

Colleges and universities should formulate systematic training plans for teachers' intelligent technology, and organize teachers to participate in training on a regular basis. The training covers the basic knowledge of artificial intelligence, the use of intelligent teaching tools, data mining and analysis techniques, etc. Industry experts and technicians are invited to give lectures and practical guidance, and through case analysis, simulation drills, etc., teachers can master the application methods of intelligent technology in practice. At the same time, teachers are encouraged to participate in relevant academic seminars and workshops to understand the latest development of artificial intelligence in the field of education, and continuously improve the level of intelligent technology of teachers (Xiaoyang et al., 2021). Guide teachers to realize the transformation of their role from traditional knowledge imparters to learning facilitators and capacity builders. Through the training of education and teaching concepts, teachers are deeply aware of the importance of students' main position in the era of artificial intelligence. Teachers are encouraged to design student-centered teaching activities in teaching, and use artificial intelligence technology to provide students with support for self-directed and

cooperative learning. For example, teachers organize students to carry out project-based learning, use the intelligent teaching platform to provide students with project resources, guide students to formulate project plans, and give guidance and feedback during the implementation of the project, so as to cultivate students' comprehensive ability (Rong & Gang, 2021). Establish and improve incentive mechanisms for teachers, and stimulate teachers' enthusiasm and creativity in applying artificial intelligence technology. Colleges and universities can set up special reward funds to give material rewards and spiritual commendations to teachers who have outstanding performance in AI-enabled ideological and political education. In terms of professional title evaluation and performance appraisal, teachers' achievements in intelligent teaching application, curriculum development, teaching research and other aspects are included in the evaluation index system to provide support for teachers' career development. At the same time, teachers are encouraged to carry out teaching reform and innovation practices, and key support and promotion are given to teaching reform projects that have achieved remarkable results (Wang, 2021).

## 5.2 Strengthen the Application and Management of Technology to Ensure Data Security and Ethics

Colleges and universities should increase the construction and improvement of intelligent ideological and political education technology application platforms. Integrate the existing teaching resources and technology platform to build an integrated intelligent teaching platform with complete functions, convenient operation, stability and reliability. The platform should have functions such as intelligent teaching management, personalized learning support, and teaching data analysis, so as to provide a full range of services for teachers' teaching and students' learning. At the same time, strengthen the technical maintenance and update of the platform to ensure that the platform can adapt to the development of artificial intelligence technology and the changes in education and teaching needs in a timely manner. Establish a strict data security management system to ensure the security of ideological and political education data. In the process of data collection, clarify the scope and purpose of data collection, follow the principles of legality, legitimacy and necessity, and obtain students' consent. Strengthen security protections for data storage, transmission, and use, and use technical means such as data encryption, access control, and identity authentication to prevent data leakage and abuse. Conduct regular data security assessments and audits to identify and

resolve potential security risks in a timely manner. For example, advanced encryption algorithms are used to encrypt students' personal information and learning data, and only authorized personnel can access and process these data, ensuring the security of the data throughout its lifecycle (Tang, 2023). Colleges and universities should set up a special AI ethics review committee to conduct ethical review of the application of AI in ideological and political education. The review includes the purpose of the application of the technology, the use of data, and the fairness and transparency of the algorithm. Formulate clear ethical review standards and processes, and require teachers and technology developers to submit detailed project plans before applying AI technology, which can only be implemented after being reviewed and approved by the ethics review committee. Violations of the Code of Ethics will be corrected in a timely manner and relevant responsibilities will be pursued. Through the establishment of an ethical review mechanism, it is ensured that the application of artificial intelligence in ideological and political education conforms to ethical norms and educational goals, and ethical risks are avoided.

### 5.3 Promote Collaborative Innovation and Create a Good Environment for Educating People

Colleges and universities have established close cooperative relations with enterprises to jointly carry out ideological and political education and collaborative education. Enterprises can provide practice bases, case resources and technical support for colleges and universities to help them combine ideological and political education with actual production and life. For example, enterprises participate in the development of ideological and political courses in colleges and universities, provide real enterprise cases, and let students understand corporate social responsibility and professional ethics in their studies. At the same time, colleges and universities provide ideological and political training for enterprise employees to improve their ideological and political quality. Through cooperation in carrying out practical teaching activities and holding ideological and political education seminars, the two sides will share resources, complement each other's advantages, and jointly cultivate high-quality talents to meet the needs of social development (Yin, 2021). Strengthen exchanges and cooperation between colleges and universities, and realize the sharing of ideological and political education resources. Different colleges and universities have their own characteristics and advantages in ideological and political education, and promote experience sharing and resource circulation among universities through the establishment of inter-university cooperation

alliances and inter-school exchange activities. For example, establish a resource sharing platform for ideological and political education courses, and colleges and universities will upload high-quality ideological and political courses, teaching courseware, case libraries and other resources to the platform for teachers and students in other colleges and universities to learn and use. At the same time, we organize inter-school teachers' teaching observation activities and students' ideological and political practice exchange activities to promote the improvement of teachers' teaching level and the development of students' comprehensive quality, and create a good atmosphere for ideological and political education. Construct an education mechanism with the linkage of family, school, and society, and form a joint force of ideological and political education. The school strengthens communication and contact with parents, teaches ideological and political education methods to parents through parent- teacher meetings and parent schools, guides parents to pay attention to students' ideological dynamics, and creates a good family ideological and political education environment. At the same time, the school actively cooperates with social institutions and communities to carry out social practice activities and volunteer services, so that students can receive ideological and political education in the social classroom. For example, it organizes students to participate in community civilization creation activities to cultivate students' sense of social responsibility and dedication. Social media and cultural institutions should also play an active role in spreading positive energy, providing students with healthy and progressive cultural products and information resources, and jointly promoting the improvement of students' ideological and political literacy (Dong & Dong, 2023).

## 6. CONCLUSIONS

This study deeply analyzes the problems related to the ideological and political education and cultural system of colleges and universities empowered by artificial intelligence. Through the investigation and analysis of the current situation, the problems of insufficient integration of technology and education, data security and ethical risks, and teachers' adaptation difficulties in the current application are clarified. This paper explores the innovation path from the three dimensions of concept, content and method, proposes to establish a new concept of intelligent ideology and politics that is student-centered, human-computer collaborative and data-driven, constructs a new intelligent ideological and

political content based on the accurate supply of big data, integrates artificial intelligence elements, and dynamically updates multiple expansions, and adopts a new intelligent ideological and political method of intelligent interaction, virtual simulation practice, and intelligent evaluation and feedback. At the same time, the path optimization strategy is proposed from three aspects: improving teachers' intellectual literacy, strengthening technology application and management, and promoting collaborative innovation, aiming to provide theoretical and practical guidance for the development of ideological and political education in colleges and universities in the era of artificial intelligence. Due to the limitation of the scope of the survey and the size of the sample, the understanding of the actual situation of some universities may not be comprehensive, and the generality of the research results needs to be further verified. On the other hand, with the rapid development of artificial intelligence technology and the continuous emergence of new application scenarios and problems, this study does not have an in-depth forward-looking analysis of the new trends and challenges that may arise in the ideological and political education of colleges and universities in the future. In the future, we will continue to pay attention to new problems in the practice of ideological and political education in colleges and universities, continuously improve and deepen the research on the cultural system of ideological and political education in colleges and universities empowered by artificial intelligence, and provide stronger support for promoting the innovation and development of ideological and political education in colleges and universities.

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