

# Research on Artificial Intelligence Empowering Innovation in Ideological and Political Teaching in Colleges and Universities

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**Abstract:** Curriculum thought and politics are the need for the development of colleges and universities in the new era, aiming at solving the fundamental problem of talent training. With the development and popularization of artificial intelligence, the intelligence of curriculum thought and politics has ushered in new development opportunities and is also facing new teaching challenges. In view of this, this paper briefly summarizes the value of AI-enabled ideological and political teaching in colleges and universities, as well as the principles that should be followed in teaching innovation, analyzes the problems faced by the construction of ideological and political teaching in colleges and universities, and further discusses the practical path of AI-enabled ideological and political teaching in colleges and universities, hoping to provide new ideas and paths for the innovation of ideological and political teaching in colleges and universities.

**Keywords:** Artificial intelligence; Universities; Curriculum thinking and politics

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## 1. Introduction

The “Guiding Outline of Curriculum Ideological and Political Construction in Colleges and Universities” issued by the Ministry of Education points out the direction for the key points and measures of curriculum ideological and political construction. As the core driving force of the new round of scientific and technological revolution, artificial intelligence is penetrating all fields of society at an unprecedented speed, and the field of education is no exception<sup>[1-5]</sup>. As a new path of ideological and political education, curriculum ideology and politics should actively respond to the call of the state, actively explore the deep integration with artificial intelligence, 5G and other frontier technologies, and build a new curriculum ideology and politics system that ADAPTS to the era of artificial intelligence. Therefore, exploring how artificial intelligence can enable the innovation of ideological and political teaching in college curricula is not only a profound change to the traditional teaching mode but also an urgent need to enhance the effectiveness, sense of the era and appeal of ideological and political education in the new era.

## **2. The value of artificial intelligence enabling ideological and political teaching in college courses**

### **2.1. It is conducive to building a community of ideological and political education**

In the field of higher education, the effective implementation of curriculum ideology and politics depends on four core subjects: teachers, students, schools and families, enterprises and society. Through coordination and integration, these four main bodies develop their strengths and jointly build a comprehensive and multi-dimensional ideological and political education community. However, in the traditional education environment, due to the lack of efficient coordination mechanisms and bridges, each subject often fights on its own, and it is difficult to form a strong education force. With the advent of the era of artificial intelligence, this situation will be fundamentally changed. Artificial intelligence technology has built a seamless bridge between the four major entities, achieving deep integration and connectivity online and offline. Under this new ecology, teachers can use the intelligent platform to innovate teaching methods and enrich the connotation of ideological and political education in the curriculum. Students can transcend the limitations of time and space, participate in learning and interaction flexibly, and internalize the content of curriculum ideology and politics. Schools can coordinate resources, build intelligent teaching management systems, and improve the overall efficiency of ideological and political education. The participation of families, enterprises and society is more convenient, through the sharing platform to contribute resources, exchange experience, and formation of the whole society to participate in the ideological and political education atmosphere.

### **2.1. It will help break through the time-space boundary of ideological and political education**

In traditional offline course teaching, teachers often face the challenge of limited classroom time, which makes it difficult to fully integrate ideological and political elements, and students are often unable to deeply think and internalize these important contents due to time constraints. In addition, the immediacy of the course also limits students' ability to review and learn the parts that are not fully understood. However, the integration of artificial intelligence technology has brought revolutionary changes to "curriculum thinking and politics" and spawned a new model of "intelligence + curriculum thinking and politics." In this model, artificial intelligence not only breaks the boundary of physical space but also transcends the limit of time, making the collaboration and interaction between teachers, students, schools, families, enterprises, and society endless. With the rise of massive open online courses (MOOCs) and various kinds of intelligent interactive software, curriculum ideology and politics are no longer limited to the campus, but transcend the wall and become a kind of educational resource that can be reached anytime and anywhere. According to their pace and needs, students can access and learn these courses' content integrated into ideological and political education at anytime and anywhere through smart devices.

### **2.3. It helps build an intelligent classroom ecosystem**

With an unstoppable momentum, artificial intelligence is reshaping the face and ecology of education. The rise of the smart classroom, smart campus and smart terminal not only subverts the single mode of traditional teaching but also builds a new classroom ecosystem integrating interactive teaching systems, network teaching systems and teaching evaluation systems based on big data analysis. It breaks the limitations of traditional teaching, promotes the optimal allocation and efficient utilization of educational resources, and lays a solid foundation for cultivating talents with innovative spirit and practical ability.

### **3. The principle of innovation of ideological and political teaching in college curriculum enabled by artificial intelligence**

#### **3.1. Value assisted by technology**

The algorithm recommendation technology of artificial intelligence, relying on its powerful data processing and deep learning capabilities, realizes accurate prediction, personalized push and instant feedback of information. This technological innovation not only touches the foundation of information release and rule-making but also shapes a new pattern of discourse dissemination. Therefore, in the process of designing and developing curriculum ideological and political intelligence algorithms, colleges and universities must unswervingly take Marxism as the guiding ideology, firmly establish the people-oriented value orientation, and ensure the correct direction of technological development. This requires schools to deeply plant the value concept of the mainstream ideology in the whole process of algorithm design and application, and build a solid foundation of algorithm value. At the same time, it is necessary to give priority to ideological and political education information in algorithm recommendation, and improve its communication efficiency, so that socialist core values are widely disseminated and deeply rooted in the hearts of young college students, to realize the deep integration of value guidance and technology drive, and contribute to cultivating young people with noble morality and firm faith in the new era.

#### **3.2. Content supplemented by technology**

In the ideological and political teaching of college curricula, if teachers blindly pursue the diversified innovation of teaching forms driven by artificial intelligence, the teaching content may tend to be superficial, entertaining and even fragmented, thus weakening the effectiveness of curriculum ideological and political education<sup>[6-15]</sup>. The core of college curriculum ideological and political education lies in the in-depth inventory and activation of professional curriculum resources, and the continuous excavation and construction of ideological and political value in professional knowledge. This requires teachers to integrate professional ethics and professional ethics into teaching to cultivate students' good professional ethics. Teachers can carry forward the excellent traditional Chinese culture and Chinese spirit, and deepen students' feelings of home and country. At the same time, it can focus on the international situation and domestic development, and broaden students' global vision. To achieve this goal, teachers should make efficient use of artificial intelligence technology to build a curriculum ideological and political database integrating ideological and political elements, rich teaching cases, fine courses by famous teachers and lecture plans, to provide high-quality resource support for classroom teaching and make professional courses both lively and interesting and rich in connotation.

#### **3.3. Teacher supplemented by technology**

To promote the construction of curriculum ideology and politics in colleges and universities, curriculum teachers, as the first people responsible for teaching, are the "main force" in implementing curriculum ideology and politics. They not only impart knowledge and cultivate ability but also play a key role in guiding values, shaping students' worldviews, life, and moral values with mainstream ideology and core values. The whole teaching process is led by teachers, from goal setting to content selection and method application, to knowledge transfer, skill teaching, theoretical analysis, and feedback evaluation, which have a profound impact on the formation of students' values. Since artificial intelligence lacks human emotion and moral judgment, it can only help to deal with teaching trifles, and the heavy responsibility of emotional education is

still shouldered by teachers. Therefore, the integration of artificial intelligence into curriculum thinking and politics requires a clear division of labor between man and machine, teachers lead the guidance of emotion and values, and artificial intelligence optimizes the teaching process. The two advantages complement each other, and jointly promote college curriculum thinking and politics to a high standard, high quality, and high level.

## **4. Artificial intelligence empowers the practice path of college curriculum ideological and political teaching**

### **4.1. Empower the main body of teaching and promote the education of all staff**

The concept of holistic education advocates the extensive participation of all teachers to jointly create a comprehensive education environment. In promoting the innovation of ideological and political teaching in college curricula, the integration of artificial intelligence has injected new vitality into this process. On the one hand, artificial intelligence has become a helpful assistant for teachers of specialized courses, helping them to quickly capture the pulse of the era, select fresh materials, and stimulate students' initiative and creativity with the help of intelligent learning platforms and other tools, guiding them to deeply understand the essence of ideological and political education in analysis and exploration, and independently build a knowledge system of ideological and political education, to enhance the educational effect. This can effectively stimulate students' sense of mission and responsibility, and deepen the goal of moral education and human development.

On the other hand, the application of artificial intelligence products such as educational robots has further enriched teaching methods. These intelligent assistants based on human-computer interaction, machine vision and situational awareness technology can assist teachers in completing data collection and lesson plan writing before class; In class, reading aloud, roll call, learning status monitoring and other functions improve classroom interaction and efficiency; After class, the teachers' work burden is significantly reduced through automatic homework correction, exam monitoring and other tasks. This reform enables teachers of specialized courses to get rid of tedious daily affairs, focus more energy on the in-depth exploration and activation practice of curriculum ideology and politics, promote the refinement, depth and vividness of education work, and realize high-quality curriculum ideology and politics teaching.

### **4.2. Empower the teaching process to help educate students throughout the course**

The concept of whole-course education emphasizes that universities should seamlessly integrate ideological and political education into every link of education. Therefore, the key to promoting the ideological and political innovation of college curriculum through artificial intelligence is to strengthen the core position of the classroom, ensure that all professional courses become the main channels of ideological and political education, and realize the deep integration of professional knowledge and ideological and political content, as well as the dual goals of knowledge transmission and value guidance.

First of all, by using artificial intelligence and big data technology, teachers can build a comprehensive database of students, draw a three-dimensional and visual data portrait of students by analyzing their behavior trajectories on the intelligent platform, accurately grasp their ideological dynamics, personality characteristics and needs, so as to scientifically formulate curriculum ideological and political goals.

Besides, the self-adaptive learning system is introduced to realize personalized teaching. Based on deep diagnosis and analysis of ideological and political learning processes, the system identifies each student's learning habits, cognitive ability and interest preferences, automatically adjusts teaching strategies, pushes

customized ideological and political resources, and generates personalized learning paths. At the same time, teachers can use the system to immediately grasp the students' ideological dynamics and classroom performance, and provide necessary emotional care and psychological support.

Finally, the effectiveness evaluation of curriculum ideological and political content should be extended to after class, focusing on the degree of internalization of ideological and political content and the improvement of teaching influence. On the one hand, intelligent assessment technology is used to fully capture students' emotional and behavioral responses and accurately evaluate the learning effect. On the other hand, through posture recognition, emotional computing and other technologies to analyze the teaching status of teachers, assess the quality of emotional transmission and interaction between teachers and students, combined with speech recognition and text analysis technology, quantify the proportion and effect of ideological and political content in teaching. Based on this feedback, timely adjustment of teaching strategies, and optimization of follow-up teaching plans, to ensure that college curriculum ideological and political teaching can continue and effectively promote the overall development of students, achieving the fundamental task of moral education.

### **4.3. Expand the teaching space to achieve comprehensive education**

The concept of comprehensive education advocates starting from the spatial dimension of education, and building a diversified education platform coordinated inside and outside the school. In promoting the innovation of ideological and political teaching in college courses, enabling teaching space has become a key link. Colleges and universities can make use of the advantages of artificial intelligence technology to expand teaching boundaries, realize the deep integration of offline and online teaching, and create a new education ecology that is all-dimensional and multi-dimensional in campus and off-campus, in and out of class, online and offline.

In terms of optimizing offline teaching space, with the rapid development of 5G, artificial intelligence, big data, VR/AR and other technologies and the popularity of mobile learning devices, the smart classroom comes into being. Through multimedia interactive lecterns, the flexible layout of desks and chairs, virtual teaching aids and wearable devices, the smart classroom provides an intelligent environment for a variety of teaching modes, such as case teaching, situational inquiry, problem-solving and man-machine collaboration. At the same time, with the help of cutting-edge technologies such as digital twins and multi-screen interaction, high-quality curriculum ideological and political teaching resources can be shared synchronously in real-time, promoting the exchange of experience among teachers and ensuring a balanced learning experience for students. In addition, the application of VR/AR/MR technology can build a highly simulated and low-delay immersive learning environment, enhance students' sense of participation and experience through virtual three-dimensional scenes, and further enrich human-computer interaction, making ideological and political teaching more vivid and interesting, and deeply rooted in the minds of students

At the level of expanding online teaching space, the establishment of online open courses, interactive software, and educational resource-sharing platforms can greatly broaden the teaching space, break the physical boundaries, and enable students to independently access curriculum ideological and political resources anytime and anywhere, to achieve online deep learning on a global scale. This boundary-free teaching mode not only improves the flexibility and autonomy of learning but also provides a broad stage for international communication and the exchange of curriculum ideology and politics.

## 5. Conclusion

The innovation of ideological and political teaching of college curricula enabled by artificial intelligence is not only the only way of teaching modernization but also the urgent need to strengthen the ideological and political construction of college curricula in the new era. Colleges and universities should conform to the changes of the era, actively seek changes, grasp the historical opportunity brought by artificial intelligence, deepen their integration with curriculum ideological and political teaching, and build a full-participation, whole-course, wide coverage of the education system, to cultivate socialist builders and successors with comprehensive development of morality, intelligence, physical fitness, and promote the vigorous development of education.

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