

Research on Wisdom-based Ideological and Political Education Construction in Higher Education in the Era of Artificial Intelligence

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Abstract: With the rapid development and widespread application of artificial intelligence (AI) technology, the field of ideological and political education in universities is facing new challenges and opportunities. AI technology provides new possibilities and directions for the ideological and political education curriculum, necessitating the transformation and upgrade of traditional educational approaches. This article elaborates on the fundamental characteristics of AI-enabled curriculum for ideological and political education, clarifying the opportunities that AI technology brings to ideological and political education in higher education institutions. It explores opportunities in aspects such as temporal and spatial expansion, situational enhancement, personalized education, and resource sharing, enriching the theoretical framework of new laws, new concepts, and new models. The paper delineates practical paths, including the establishment of a smart cultural circle for curriculum-based ideological and political teaching, the development of open courses for smart curriculum-based ideological and political education, the creation of exemplary cases in "intelligence + curriculum-based ideological and political education," faculty training mechanisms, and educational effectiveness evaluation mechanisms. It summarizes the main achievements of the research and offers prospects and suggestions for the future development of smart ideological and political education in universities.

1. Introduction

The rise of artificial intelligence has brought profound impacts on ideological and political education in higher education institutions, presenting both challenges and rare opportunities. In this new era, higher education's ideological and political education needs to actively embrace the achievements of new technologies like artificial intelligence to enrich and enhance educational theories. Utilizing artificial intelligence to revolutionize the approaches and methods of ideological and political education aids in addressing the challenges of the new era and enables better adaptation to external changes, while internally fulfilling the historical mission of national rejuvenation. Smart ideological and political education, as a novel educational model, represents the exploration and innovation by higher education institutions in the realm of ideological and political

education theories and practical systems amidst the new technological revolution of artificial intelligence. Its core objective lies in nurturing a new generation of talents who possess patriotism and the ability to contribute to the country's development. Effectively integrating artificial intelligence into the practice of ideological and political education in higher education can shape the quality of talents, providing intellectual support and ideological guidance for the great rejuvenation of the Chinese nation.

2. Basic Characteristics of AI Empowering Curriculum-based Ideological and Political Education

The concept of building a smart curriculum-based ideological and political education system by integrating intelligent technology into ideological and political education design and implementation embodies two fundamental characteristics of AI empowerment in curriculum-based ideological and political education.

The "intelligence +" concept in curriculum-based ideological and political education represents the deep integration and active combination of artificial intelligence and ideological and political education. This "intelligence +" mode serves as a means to promote the organic integration and facilitate the profound fusion between the curriculum and ideological and political education.

Under the backdrop of "intelligence +," curriculum-based ideological and political education exhibits innovative features of cross-disciplinary integration and an open ecosystem. Implementing "intelligence +" in curriculum-based ideological and political education necessitates comprehensive considerations in teaching design within intelligent environments, fostering an open and innovative educational ecosystem^[1].

3. Opportunities Brought by Artificial Intelligence to Ideological and Political Education in Higher Education

3.1 Expansion of Temporal, Spatial, and Situational Dimensions in Ideological and Political Education

With the advancements in technology and the advent of the AI era, individuals have gained more discretionary time. This might result in shortened working hours, providing individuals with ample leisure time to focus on cultural and spiritual activities, emphasizing the significance of ideology, morality, ideals, beliefs, and hobbies, thereby highlighting the elevated role and status of ideological and political education.

The emergence of information space has expanded the scope of ideological and political education, altering the methods of knowledge acquisition and dissemination. Values constitute the core of ideological and political education, and the AI era presents new opportunities for its education. AI technology constructs scenario-based learning spaces, aiding in the formation and consolidation of values. However, internalizing thoughts, concepts, and values differs from traditional knowledge impartation, requiring deeper contemplation and resonance.

The development of artificial intelligence underscores the existence of contextuality, domain specificity, and intermediation, eliminating the opposition between the subject and object of ideological and political education. Its application in education offers a novel educational environment, contributing to the formation of students' value systems. This interactive nature plays a constitutive role in the educational environment, yet genuine education still necessitates real human participation and guidance.

3.2 Meticulous, Precise, and Exquisite Personalized Education

Personalized education and faculty development are crucial aspects of current ideological and political education. Tailoring guidance for each student is an urgent requirement. The advancement of artificial intelligence offers possibilities for personalized education. Through data collection and analysis, a more accurate understanding of students' learning characteristics and psychological states can be achieved, facilitating tailored teaching. Moreover, the cultivation of faculty teams in higher education institutions is equally imperative. Teachers need to adapt to the role transition of the new era, becoming mentors capable of guiding students' ideals and values. Leveraging artificial intelligence, teachers can better address the challenges of informatization, shaping a more comprehensive educational image.

The intelligent process of ideological and political education is key to modern teaching methods. With the aid of artificial intelligence, the education sector has embraced a new three-dimensional teaching model: the integration of online education, classroom education, and practical education. Simultaneously, teachers in the AI era need capabilities such as relevance thinking and big data thinking to enhance the depth and breadth of educational processes^[2].

The precision-oriented ideological and political education process signifies a new direction in educational development. The application of artificial intelligence technology makes education more personalized and precise. In this model, the education process becomes more targeted and flexible, allowing students to thrive in a personalized educational atmosphere. This represents a new phase for ideological and political education toward a more personalized and tailored approach.

3.3 Co-construction, Co-governance, and Sharing of Ideological and Political Education Resources in Higher Education

As knowledge paradigms shift, educational resources trend toward digitalization and ubiquity, enabling easy access for everyone. The informatization phase of information networking has resolved the issue of transmission distance but has also sparked challenges of information overload and fragmentation. In the era of artificial intelligence, precise selection and intelligent allocation of resources can seamlessly connect educational resources from different regions, fostering the co-construction and co-governance of ideological and political education resources.

The COVID-19 pandemic has propelled the integration of artificial intelligence technology with education, particularly in online education and intelligent learning. Artificial intelligence can play a positive role in emotional support and psychological counseling. While AI can teach knowledge, in shaping values, human emotions and interactions between teachers and students remain crucial. Human-machine integrated educational methods can facilitate resource sharing in remote areas, enhancing teaching efficiency^[3].

The AI era aids in the transformation of ideological and political education from emphasizing primary thinking to cultivating higher-order thinking abilities. Cognitive outsourcing, leveraging intelligent devices for thinking and cognition, effectively assists teachers in creative work, allowing students to focus more on higher-order thinking and self-realization. This approach not only facilitates the co-construction, co-governance, and sharing of resources but also enhances educational efficiency.

3.4 Enrichment of Theoretical Framework with New Laws, New Ideas, and New Models

Employing big data thinking facilitated by artificial intelligence can collect and deeply explore data on college students' ideological states, learning styles, social opinions, and ideologies. This data-driven approach can promptly identify issues, grasp situations, and more targetedly enhance

the foresight and effectiveness of education, providing practical experiential foundations for theoretical refinement. Such a thinking mode radically alters the traditional causal relationship thinking, bringing forth new ways of thinking and ideologies.

In the primary channel—the ideological and political theory courses—emerging teaching methodologies such as deep learning based on artificial intelligence are gradually emerging. Deep learning not only emphasizes learners' deep comprehension of content but also highlights individual construction and experiential realization, along with the ability to transfer new knowledge. This learning approach fosters the cultivation of "virtue," aids in understanding moral cognition, and firmly establishes moral concepts in students' minds. Deep learning also promotes human-machine collaboration, enriching the ideological and political education model through human-machine interaction and the combination of online and offline approaches, enhancing teaching effectiveness and affinity.

4. Smart Ideological and Political Education Practice Path in the Era of Artificial Intelligence

4.1 Establishment of a Smart Cultural Circle for Ideological and Political Education in Courses

Leveraging core artificial intelligence technologies, the promotion of campus cultural activities in ideological and political education, particularly utilizing mobile, intelligent, and virtual reality technologies, has built a virtual exhibition area showcasing ideological and political elements. This virtual display presents traditional exhibits to students in a virtual reality format, allowing them to explore relevant historical backgrounds in a free and enjoyable atmosphere. This cultural activity creates an implicit ideological and political classroom, enhancing the efficiency and effectiveness of campus cultural activities related to ideological and political education^[4].

For instance, in the field of digital media technology within the computer network major, it serves as not only a core course but also a precursor to many other courses. Therefore, creating an exclusive ideological and political education cultural circle specific to the computer network course is crucial. Firstly, through mobile technology, social interactions with enthusiasts and professionals in the computer network field are fostered, accessing real-time course hotspots via apps and mini-programs, sharing online course resources, and conducting online tests to understand student ideological dynamics, thereby strengthening ideological and political education. Secondly, by employing intelligent technology, personalized learning plans are tailored, adjusting course content according to students' learning progress, facilitating student-centered personalized learning. Finally, utilizing virtual reality technology constructs three-dimensional virtual venues showcasing the development history, network structures, and equipment usage methods of computer networks, providing immersive learning experiences, enhancing learning interactivity, thus enriching campus cultural activities and forms of ideological and political education within courses.

4.2 Development of Open Courses in Smart Ideological and Political Education

In recent years, numerous open courses in ideological and political education have emerged, forming various intelligent teaching platforms, with MOOC (Massive Open Online Course) platforms being an assembly of a vast array of open courses in ideological and political education. MOOCs not only offer abundant free learning resources but also establish a complete learning ecosystem, allowing students to study, practice, take exams online, engage in online discussions with other learners, and ultimately receive certification, completing a comprehensive learning process. The latest data from the Ministry of Education indicates that China's MOOC quantity and application scale rank at the forefront globally. In the "smart +" era, through modern educational

methods, innovative teaching methods can be achieved, such as flipped classrooms and hybrid teaching combining online and offline methods, strengthening the connection between ideological and political education content, professional knowledge, and real-world society, further enhancing the educational outcomes of ideological and political education. These open courses offer students more flexible and convenient learning opportunities, breaking time and space constraints, enabling students to learn at their own pace. The emergence of MOOC platforms allows students not only to access high-quality teaching resources but also to participate in interactions and exchanges with learners from around the world, promoting cross-cultural communication and understanding. Meanwhile, leveraging the technology of the "smart+" era makes it possible to update and innovate teaching methods, making ideological and political education more interactive and diverse. This makes ideological and political education more aligned with students' practical needs and real-world society, offering more possibilities for students' comprehensive development and personalized learning.

4.3 Establishment of Excellent Cases of "Smart + Ideological and Political Education" in Courses

Building exemplary cases of "Smart + Ideological and Political Education" poses higher demands on teachers, necessitating the integration of professional teaching, ideological guidance, and smart teaching capabilities. Within this context, selecting exemplary cases is not only a challenge to teachers' abilities but also an innovation in teaching methods. The success of exemplary cases requires a fusion and collaborative effort between professional and ideological instructors. It cleverly incorporates current societal concerns and hot topics into the teachings, guiding theory to interpret reality. This ensures that each course contains elements of ideological and political education, allowing every teacher to shoulder the responsibility of ideological and political education.

For instance, in a computer network course, instructors can utilize intelligent technologies such as Virtual Reality (VR) and Augmented Reality (AR) as auxiliary tools to vividly present the historical development of computer networks. This enables students to experience the rigorous academic attitude and active thinking of scientists, fostering an artisan spirit in engineering. Simultaneously, it enhances their sense of national identity while strengthening awareness of scientific and engineering ethics, thereby igniting patriotism. When explaining network architectures, teachers should encourage students to expand their thinking by comparing the TCP and OSI reference models and utilizing an application platform for group discussions and collaboration. This contributes to fostering teamwork, rule consciousness, resource sharing, as well as concepts of equality and respect, thereby sparking their innovative thinking. Furthermore, in the realm of network security technology, regulating online behavior enhances students' awareness of national cybersecurity, reinforcing correct ethical principles concerning networks. Teachers ought to incorporate current trending news into network application lessons, and employ recent theoretical knowledge in practical experiments, so as to nurture students' innovative thinking in this era of intelligence and foster their patriotism and cultural confidence^[5].

4.4 Establishment of the "Smart + Ideological and Political Education" Teacher Training Mechanism

In the era of artificial intelligence, constructing the practical path of intelligent ideological and political education in higher education necessitates the creation of a "Smart + Ideological and Political Education" teacher training mechanism. The core of this mechanism revolves around employing intelligent means to conduct specialized ideological and political education training for

teachers, enabling them to better integrate ideological and political elements into course instruction. The following outlines the practical path of this teacher training mechanism:

Teacher training should integrate "Smart +" technologies such as artificial intelligence, big data, and virtual reality, designing and providing specialized training courses for teachers. These courses aim to enhance teachers' ideological and political literacy, teaching abilities, and incorporate intelligent technology into ideological and political education. During teacher training, emphasis should be placed on integrating ideological guidance and the cultivation of ethical conduct. Training content should not only cover professional courses and subject knowledge but also prioritize enhancing teachers' ideological and political education capabilities and moral integrity. This can be achieved through a combination of online and offline methods, offering personalized teaching content and training resources for teachers of different types and disciplines. Conduct teacher training using a combination of online and offline teaching modes. Online training can provide flexible and convenient teaching resources through network courses, online discussions, interactive platforms, etc. Offline training, on the other hand, can consist of seminars, workshops, lectures, etc., emphasizing interaction and practical application.

4.5 Establishment of the "Smart + Ideological and Political Education" Educational Effect Evaluation Mechanism

In the era of artificial intelligence, establishing an evaluation mechanism for the "Smart + Ideological and Political Education" is crucial, providing necessary adjustments and optimization methods for the smooth operation of ideological and political courses. Moving away from traditional paper-based evaluation methods, a digital dossier for evaluating ideological and political courses is to be established. This electronic dossier incorporates subjective evaluation systems from teachers and counselors, integrated with a dedicated application developed for mobile devices (an app or mini-program). Such design effectively stores and manages evaluation data, facilitating easy access and updates at any time. Using mobile devices, an app or mini-program will interface with the ideological and political course's digital dossier, enabling periodic and random evaluations. Teachers and counselors can use these tools to evaluate aspects such as student attendance, participation in discussions, and performance in subject quizzes. The data collected can be collated and analyzed using intelligent systems. Leveraging artificial intelligence and big data analytics, the collected data undergoes processing and analysis. This technology assesses student engagement, depth of participation, and academic performance in the ideological and political course, providing objective data support for educational effect evaluation. This information serves as a critical basis for evaluation, reflecting students' behavior, attitudes, and values in the ideological and political education course. A comprehensive evaluation of the effectiveness of the ideological and political course is formed by integrating subjective and objective evaluation data. By amalgamating data from various sources and utilizing intelligent analysis and algorithms, a comprehensive evaluation report is generated, providing a basis for teaching improvements and course optimization.

5. Conclusion

In the era of artificial intelligence, higher education's intelligent ideological and political construction has encountered significant opportunities. This paper explores the concept of "Smart + Ideological and Political Education" and delves into the fundamental features of AI-empowered ideological and political courses, including expanded time, space, situational diversity, personalized education, resource sharing, and enriched new models. By constructing a smart ideological and political teaching cultural circle, conducting open courses for smart ideological and political education, crafting exemplary cases of "Smart + Ideological and Political Education," establishing

teacher training and evaluation mechanisms, comprehensive paths and practical approaches for higher education's intelligent ideological and political construction are provided. This innovative form eliminates the shortcomings of traditional ideological and political education, making ideological and political courses more efficient and practical. Moreover, it fosters collaborative cooperation among various stakeholders, nurturing highly qualified, thoughtful, and morally upright young students. Therefore, intelligent ideological and political education will bring about fresh innovations and vitality to higher education.

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