

The Practical Pathways of Artificial Intelligence Empowering Ideological and Political Education in Universities

Zihao Wang^{1*}

¹ School of Marxism, Jiangsu University, Zhenjiang, China

Email Address

1810001835@qq.com (ZihaoWang)

*Correspondence: 1810001835@qq.com

Received: 21 July 2025; **Accepted:** 16 August 2025; **Published:** 19 September 2025

Abstract:

Against the backdrop of the profound changes brought about by the current digitalization of education and the development of artificial intelligence technology, ideological and political education in colleges and universities urgently needs to achieve innovative breakthroughs. This paper focuses on the application approaches of artificial intelligence in ideological and political education in colleges and universities, which has strong academic value and practical significance. From a theoretical perspective, this research further promotes the organic integration of Marxist technological concepts and ideological and political education theories, laying a theoretical foundation for the transformation of ideological and political education models in the artificial intelligence environment. In practice, it can effectively address the common problems in traditional ideological and political education, such as “content homogenization, one-way transmission, and limited effectiveness”, and truly enhance the pertinence, interactivity, and effectiveness of teaching, opening up new practical directions for promoting the development of ideological and political education in colleges and universities to a higher quality stage.

Keywords:

Artificial Intelligence, Education, Practical Path

1. Analysis of the Current Situation of Empowering Ideological and Political Education in Colleges and Universities with Artificial Intelligence

1.1. Application Effects: Practical Exploration of Artificial Intelligence in Ideological and Political Education

Broadly speaking, artificial intelligence refers to the simulation of human thinking processes and intelligent behaviors by machines or systems. [1] The integration of artificial intelligence with ideological and political education in colleges and universities is not merely a mechanical combination of technical tools and teaching

content, but rather a deep collaboration through algorithm empowerment, data-driven approaches, and scenario reconstruction, promoting a transformation of the educational model from the traditional form that relied on experience to a precise and personalized intelligent form. Currently, domestic colleges and universities have mainly carried out practical and effective practices in three key areas: teaching mode innovation, management mechanism optimization, and educational resource expansion, and have formed a number of typical cases with demonstration value and replicable models, providing reference paradigms for the digital upgrade of ideological and political education. Especially in the development of educational resources, artificial intelligence has constructed a dynamic resource ecosystem of “generation - sharing - iteration”, effectively breaking through the traditional limitations of high-quality ideological and political resources in terms of time and space constraints and presentation forms. At the content production level, relying on natural language processing and knowledge graphs and other technologies, AI can achieve intelligent and rapid generation of ideological and political materials and flexible multi-modal adaptation, thereby automatically generating personalized learning materials that meet the needs of students based on their disciplinary differences and cognitive characteristics. It is worth noting that the application of artificial intelligence in ideological and political education in colleges and universities has gradually entered a new stage of systematic and deep integration from the early stage of technological experimentation. Situational teaching integrates knowledge into specific, contextual, and perceptible environments, which helps students truly understand the teaching content of ideological and political courses. [2] Its significance lies not only in improving educational efficiency but also in the deep integration of technical characteristics with the inherent logic of ideological and political education, reshaping the closed-loop system of “teaching - learning - management - evaluation”. This reconstruction provides a practical technical path for solving long-standing problems in traditional ideological and political education such as “content homogeneity, one-way transmission, and insufficient effectiveness”, and also accumulates important experience for the innovative exploration of ideological and political education in the new era on the basis of adhering to the fundamental principles, effectively promoting the digital transformation of ideological and political education towards higher quality and higher effectiveness.

1.2. Prominent Issues: The Practical Bottlenecks of Empowering Ideological and Political Education with Artificial Intelligence

The integration of artificial intelligence in ideological and political education in colleges and universities has achieved certain progress, such as enhancing classroom interactivity through intelligent teaching tools, accurately analyzing student conditions with big data, and innovating practical teaching models through virtual simulation technology. However, there are still significant constraints in terms of the depth of technology application, the digital literacy of educational subjects, data ethics governance, and the inheritance of humanistic spirit. These challenges essentially stem from the inherent contradiction between the logic of technology and the logic of education. If not systematically addressed, they may not only lead to the risk of “technological application alienation” but also undermine the fundamental mission of “moral education and talent cultivation”. Specifically, the application of technology has not yet escaped the superficial dilemma, mainly manifested in the conflict between the “tendency of toolization” and the “insufficiency of value bearing”. Currently, many applications are still limited to automated process

handling (such as intelligent attendance and homework grading) or shallow data application, and have not deeply leveraged the role of artificial intelligence in core ideological and political education aspects such as value shaping and thinking ability cultivation, resulting in a certain degree of disconnection between technology application and the essence of education. At the same time, data security and ethical issues are gradually emerging, reflecting the potential risks of “lagging technological governance”: on the one hand, excessive collection and improper use of students' ideological and behavioral data may lead to privacy leakage risks; on the other hand, the “information cocoon” caused by algorithmic recommendations and possible value biases in training data not only fail to broaden thinking but also, to some extent, solidify cognitive limitations. College students are in a critical period of value formation, and this can easily affect their judgment and discrimination abilities. [3] More importantly, there is a systemic lack of humanistic care - this is not only the most easily overlooked but also the most fatal bottleneck in technology empowerment, but also reflects the deep erosion of “educational warmth” by “technological rationality”. Although AI can achieve 7 ×24- hour language interaction, its programmed responses can never replace the trust conveyed through eye contact in face-to-face communication between teachers and students, the ideological inspiration triggered by emotional resonance, and the value guidance generated by the teacher's personal charm. Ultimately, this leads to a utilitarian convergence of “teaching for the sake of teaching and learning for the sake of learning”. [4] These deep-seated challenges essentially arise from the multi-dimensional tensions between technological logic and educational demands, instrumental rationality and value rationality, and the pursuit of efficiency and humanistic care. To break through this situation, it is necessary to break away from the linear logic of “technology supremacy”: on the one hand, we should actively utilize the capabilities of artificial intelligence in knowledge dissemination and student condition insight, and on the other hand, we must firmly adhere to the fundamental mission of ideological and political education of “moral education and soul-casting”, incorporate ethical considerations into the technological evolution process, make algorithms carry humanistic orientation, and achieve an organic integration of technological effectiveness and educational goals at a higher level, so that artificial intelligence truly serves the all-round growth of students and plays the role of a “supporter” rather than replacing the dominant position of educators.

2. Practical Pathways for Empowering Ideological and Political Education in Higher Education Institutions with Artificial Intelligence

2.1. Value Guidance Pathway: Consolidating the Ideological and Political Direction Empowered by Artificial Intelligence

Value guidance is the fundamental prerequisite and core principle for empowering ideological and political education in higher education institutions with artificial intelligence. Its essence lies in ensuring that the application of technology always serves the fundamental goal of “cultivating virtue and nurturing talent” through scientific institutional design and innovative mechanisms and systems, effectively avoiding the risk of tool rationality overstepping value rationality. The construction of this pathway requires a dialectical stance based on Marxist views on technology, fully affirming the technological value of artificial intelligence while remaining vigilant against potential value deviations caused by technological

alienation. The socialist core values should be organically integrated into the entire life cycle of artificial intelligence applications - from algorithm design, data collection to scene application - achieving a deep coupling and coordinated development of “technology as the body and value as the soul”. This enables learners to better understand and accept knowledge through immersive visual experiences, forming a complete cognitive map.

[5] The key to adhering to the fundamental orientation of “cultivating virtue and nurturing talent” lies in systematically embedding the socialist core values into the technical architecture and operational processes of artificial intelligence applications, and focusing on building a complete closed-loop system of “value presetting - process regulation - effect verification”. In the value presetting stage, clear technical ethical standards for ideological and political education should be established; in the process regulation stage, a real-time monitoring and dynamic adjustment mechanism should be established; and in the effect verification stage, scientific assessment should be conducted to ensure the actual effectiveness of value guidance. At the same time, to strengthen the guiding role of Marxist theory in the application of artificial intelligence, it is necessary to focus on building a virtuous transformation chain of “theory - technology - practice”, ensuring that artificial intelligence technological innovation is always rooted in the theoretical soil of Marxism and that technological development does not deviate from the socialist direction of running schools. Additionally, constructing a dual normative system of “technical ethics + ideological and political ethics” is an important institutional guarantee for preventing value risks. This system needs to clearly define the “red lines” and “bottom lines” for the application of artificial intelligence in ideological and political education, adhering to both the universal ethical norms of artificial intelligence technology development and the unique value requirements of ideological and political education. Through such institutional arrangements, potential ideological risks caused by technology application can be effectively prevented. The construction of the value guidance pathway essentially involves the coordinated efforts of institutional innovation and technological innovation to transform artificial intelligence from a mere “neutral tool” into a “carrier for nurturing people” that embodies socialist core values, ensuring that technological empowerment always proceeds along the correct political direction and ultimately providing a scientific answer to the fundamental question of “what kind of people to cultivate, how to cultivate them, and for whom to cultivate them” in the era of intelligence.

2.2. Pathways for Content Innovation: Building an Intelligent Ideological and Political Education Resource System

The construction of an intelligent ideological and political education resource system is a key foundation for the high-quality development of ideological and political education in colleges and universities with the assistance of artificial intelligence. Its fundamental goal is to break through the limitations of traditional resources being “fixed, scattered, and lacking in interaction” through technological means, and to build a new resource environment with the characteristics of “continuous updates, immersive experiences, and precise matching”, promoting the transformation of ideological and political education content from one-way transmission to multi-directional communication, and deepening from surface-level cognition to internal identification. The construction of this system should be rooted in the essence of Marxist theory, integrate resources from excellent traditional Chinese culture, revolutionary culture, and advanced

socialist culture, and use artificial intelligence to achieve comprehensive innovations in content forms, dissemination paths, and matching mechanisms. Essentially, the innovation of this resource system is to promote the presentation of content to be more multi-dimensional, the sources of creation to be more extensive, and the distribution process to be more targeted through technological empowerment, transforming ideological and political resources from “static storage” to “dynamic circulation”, and from “uniform supply” to “personalized services”. Ultimately, it deeply embodies the value concept that “resources themselves are the educational process”, laying a solid content foundation for the comprehensive empowerment of artificial intelligence in ideological and political education. In the narrative of the spiritual space in teaching, emotions are experienced and reality is compensated, injecting real spiritual strength into college students’ ideological and political education. [6]

2.3. Path of Method Innovation: Building a New Model of Human-Machine Collaborative Education

The human-machine collaborative teaching model represents a key advancement and significant innovation in the application of artificial intelligence to ideological and political education in higher education institutions at the methodological level. Its core lies in effectively reconciling the instrumental rationality tendency of “technology replacing teachers” with the traditional notion of “rejecting technological integration”. By clearly defining the functional roles of “teachers responsible for value shaping and AI providing auxiliary support”, it aims to establish a cooperative educational mechanism that emphasizes complementary advantages and dynamic coordination. The design of this path must closely integrate the unique practical attributes and high interaction requirements of ideological and political education, combining the efficiency of artificial intelligence in information processing and personalized services with the unique role of teachers in value guidance, emotional communication, and humanistic care, jointly promoting the transformation of ideological and political education from the previous “one-way transmission” model to a “two-way communication” mode, and from experience-based “extensive teaching” to data analysis-based “refined education”. It is essential to note that human-machine collaboration is not merely a mechanical superposition of technology and tools, but rather an educational innovation achieved through systematic transformation - redefining the functional scope of teachers and technology, scientifically reorganizing key links such as lesson preparation, teaching, and assessment, to enable big data and intelligent technologies to more effectively serve the overall goals of ideological and political education, and to better serve ideological and political teaching, achieving effective organization and collection of educational methods and information. [7] This model deeply reshapes the new educational interaction relationship between physical classrooms and virtual spaces, ultimately achieving a “1+1>2” collaborative and enhanced educational effect. The fundamental value orientation of this model is to ensure that artificial intelligence remains an empowering tool for strengthening teachers’ “dominant role in education” rather than a replacement, ensuring that technology application always serves the fundamental questions of “what kind of people to cultivate, how to cultivate them, and for whom to cultivate them”, ultimately returning to and adhering to the educational essence of “student-centeredness”, providing a demonstration path for method innovation in ideological and political education in

the era of artificial intelligence that is both theoretically forward-looking and practically feasible.

2.4. Path for Team Building: Enhancing the Intelligent Literacy of Ideological and Political Education Practitioners

The modernization of the intelligent literacy of ideological and political education practitioners is the central link in promoting the effective integration of artificial intelligence and ideological and political education, and it is also an important foundation for achieving the digital transformation and upgrading of education and fulfilling the fundamental goal of cultivating virtue and fostering talent. This group not only includes ideological and political course teachers and counselors who directly undertake teaching tasks, but also involves diverse forces such as technicians engaged in the research and development of intelligent educational tools, scholars concerned with technological ethics norms, and managers responsible for the advancement of educational informatization. The overall improvement of their literacy needs to transcend the previous focus on individual ability development, and establish a comprehensive cultivation mechanism that integrates “cross-domain collaboration, hierarchical training, and institutional support” - leveraging interdisciplinary cooperation to bridge the gap between technology and education, setting targeted ability frameworks based on functional differences, and providing complete training, incentive, and evaluation systems, thereby systematically addressing the deep-seated contradiction of “the disconnection between technological means and educational goals” that hinders the intelligence of education. Fundamentally, enhancing the intelligent literacy of ideological and political education practitioners is about reshaping the relationship structure among “human, technology, and education” through artificial intelligence, organically integrating technological rationality with educational concepts, promoting complementary capabilities among different subjects through collaboration, continuously completing self-iteration in teaching and practice, and ultimately cultivating a batch of compound educational teams that not only deeply understand Marxist theory and are proficient in using intelligent technology, but also firmly remember the political responsibility of “cultivating people for the Party and the country” and meet the development needs of the digital age, providing solid talent guarantees and continuous intellectual support for artificial intelligence to comprehensively support the high-quality development of ideological and political education.

3. Guarantee Mechanism for Empowering Ideological and Political Education in Colleges and Universities with Artificial Intelligence

3.1. Organizational Guarantee: Strengthening Top-level Design and Collaborative Promotion

Organizational guarantee is the fundamental support for effectively integrating artificial intelligence into ideological and political education in colleges and universities. The key lies in establishing an organizational structure characterized by “Party committee leadership, multi-department collaboration, and clear responsibilities” to break down the barriers to cross-departmental cooperation and transform the strategic goal of technology empowerment into orderly practical actions. The establishment of this mechanism should align with the modernization trend of the governance system in colleges and universities, integrating the construction of intelligent ideological and political education into the overall layout of ideological

work in colleges and universities, and forming a full-process management mechanism from strategic planning to specific implementation. The core role of organizational guarantee is to integrate the originally scattered subjects, resources, and functions through effective institutional arrangements, forming a collaborative force. This not only ensures that the empowerment of ideological and political education with artificial intelligence always proceeds along the correct political direction and educational orientation but also improves the efficiency and quality of practical operations, thereby providing strong organizational support for the comprehensive and effective implementation of technology-empowered education.

3.2. Technical Assurance: Improving the Intelligent Platform and Data Security System

Technical assurance serves as the material foundation for the continuous and in-depth application of artificial intelligence in ideological and political education in colleges and universities. The key lies in building a “functionally matched, secure and reliable, and continuously evolving” technical support system that not only meets the flexible and diverse actual needs of ideological and political education but also effectively guards against potential risks such as data security and algorithmic misconduct. Constructing this system requires a balance between the cutting-edge nature of technology and the practical needs of education. By enhancing platform capabilities and innovating security strategies, it provides a solid and reliable operational foundation for intelligent ideological and political teaching. The fundamental significance of technical assurance is to both strengthen the auxiliary potential of artificial intelligence through platform functions and maintain a secure bottom line through strict data governance, thereby establishing a dynamic equilibrium between enhancing teaching effectiveness and avoiding technical risks, and providing continuous and stable technical support for the long-term development of intelligent ideological and political education in colleges and universities.

3.3. Institutional Guarantee: Improving Standards and Incentive Mechanisms

Institutional guarantee forms the core support for the standardized development of artificial intelligence-assisted ideological and political education in colleges and universities. The key lies in establishing a set of institutional framework characterized by “standards first, effective incentives, and strict constraints” to clarify the ethical boundaries and development orientation of technology application, mobilize the initiative and creativity of multiple participants, and prevent the random and fragmented tendencies in practice. The design of this mechanism must be based on the ideological nature of ideological and political education and the inherent evolution logic of artificial intelligence technology, achieving a dynamic balance between “flexible guidance” and “rigid norms”. The main functions of institutional guarantee are: defining behavioral standards, establishing a linkage mechanism between contribution and incentives, and improving the feedback process of supervision and adjustment, thereby providing a clear rule environment for artificial intelligence to empower ideological and political education. Under the premise of ensuring that technology application does not deviate from the correct values, it fully stimulates the innovative potential of education and practice, and promotes intelligent ideological and political education from scattered attempts to systematic operation.

3.4. Environmental Guarantee: Creating a Favorable Ecosystem for Technological Empowerment

Environmental guarantee serves as the ecological foundation for the sustainable development of artificial intelligence (AI) in ideological and political education in colleges and universities. The core lies in building an educational ecosystem characterized by “cultural guidance, resource convergence, and collaborative symbiosis”. Through the infiltration of the soft environment and the support of the hard environment, the concept of technological empowerment can be deeply rooted in people’s minds, fostering a favorable atmosphere of full participation and continuous collaboration. The creation of this ecosystem requires a balance between technological innovation and humanistic care, achieving an organic integration of “technological sensation” and “educational flavor”. Grasping the characteristics and methods of ideological and political education innovation in the AI era not only helps enhance teachers’ innovative thinking but also benefits the disciplinary construction of ideological and political theory. [8] The core of environmental guarantee lies in constructing a “soft environment” and “hard support” conducive to AI-empowered ideological and political education through cultural immersion, facility support, resource linkage, academic leadership, and security protection. This enables technological empowerment to transform from an “external requirement” to an “internal demand”, expanding from “a few pilot projects” to “widespread practice”, and ultimately forming an ecological pattern of “everyone’s participation, everything’s collaboration, and everywhere’s infiltration”, providing a fertile ground for the continuous development of intelligent ideological and political education.

4. Conclusions

This study focuses on the implementation paths and support systems of artificial intelligence (AI) in college ideological and political education. By comprehensively analyzing the basic characteristics, main challenges, and solutions of current technological applications, it deeply reveals the core mechanisms for the innovative development of ideological and political education in the context of digitalization and intelligence. The analysis finds that the integration of AI and college ideological and political education is not merely an external addition of technical means, but a systematic evolution involving the renewal of educational concepts, the reorganization of content systems, the transformation of teaching methods, and the improvement of support mechanisms. The main research findings can be summarized as follows: First, the application of AI in ideological and political education must adhere to the fundamental principle of “value orientation preceding technical tools”, and strive to achieve an organic balance between technical efficiency and the mission of nurturing people. Second, efforts should be made from four aspects: concept guidance, resource construction, method innovation, and teacher training, to form an overall practical strategy for addressing real-world problems. Finally, a sound support mechanism is an important foundation for promoting related practices, and it is necessary to build a multi-level collaborative guarantee system integrating “management - technology - policy - culture”. As a comprehensive project, the effective advancement of AI-enabled ideological and political education lies in: guiding the development direction with value positioning, clearing obstacles with

systematic practical strategies, and consolidating the construction foundation with a sound support system.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

Funding

This This research received no specific grant from any funding agency in the public, commercial or not-for-profit sectors.

References

- [1] Wan, L.; Yi, X. Precision Teaching of Ideological and Political Theory Courses in Colleges and Universities Driven by Artificial Intelligence: Implementation Framework and Realization Path. *Research on Ideological Education*, 2022, 04, 110-115.
- [2] Liu, J. Research on the Innovation of Scenario Teaching Mode of Ideological and Political Courses in Colleges and Universities under the Condition of Artificial Intelligence Technology. *Journal of Ideological and Theoretical Education*, 2021, 11, 100-103. DOI: 10.16580/j.sxlljydk.2021.11.018.
- [3] Wang, J. Generation, Risks and Countermeasures of Artificial Intelligence Empowering Ideological and Political Teaching in Colleges and Universities. *Jiangsu Higher Education*, 2023, 09, 114-120. DOI: 10.13236/j.cnki.jshe.2023.09.015.
- [4] Hu, G. Innovative Thoughts on the Integrated Development of Artificial Intelligence and Ideological and Political Education in Colleges and Universities. *Journal of Chongqing University of Posts and Telecommunications (Social Sciences Edition)*, 2021, 33(04), 89-97.
- [5] Qiu, Y. Construction and Practice of Precision Teaching Model of Ideological and Political Theory Courses in Applied Colleges Based on Artificial Intelligence. *Vocational and Technical Education*, 2022, 43(05), 46-50.
- [6] Zhang, D. Multi-Dimensional Analysis of the Transformation of Narrative in Ideological and Political Courses in Colleges and Universities Driven by Artificial Intelligence. *Journal of Higher Education Research of Heilongjiang*, 2024, 42(01), 99-105. DOI: 10.19903/j.cnki.cn23-1074/g.2024.01.006.
- [7] Zhang, Y. Discussion on the Reform Strategies of Ideological and Political Teaching in Colleges and Universities in the Era of Big Data. *Legal System and Society*, 2020, 06, 182-184. DOI: 10.19387/j.cnki.1009-0592.2020.02.320.
- [8] Liu, X. Research on the Concepts and Paths of Innovation in Ideological and Political Education in Colleges and Universities from the Perspective of Artificial Intelligence Education. China Jiliang University, 2021.



© 2025 by the author(s); licensee International Technology and Science Publications (ITS), this work for open access publication is under the Creative Commons Attribution International License (CC BY 4.0). (<http://creativecommons.org/licenses/by/4.0/>)