

Research on the Path of Artificial Intelligence Empowering University Ideological and Political Courses

Yue Tang, Xiaojie Zhao

Chongqing Medical and Pharmaceutical College, Chongqing, China

Abstract: Aiming at the problems of rigid teaching modes, insufficient personalized teaching and low student engagement in current university ideological and political courses, this paper explores the intelligent innovation direction of college ideological and political education. Based on literature research and theoretical analysis methods, it systematically sorts out the integration mechanism between artificial intelligence and university ideological and political teaching, summarizes the practical bottlenecks of intelligent teaching reform. The research proposes targeted empowerment paths, which can effectively promote the digital and intelligent upgrading of ideological and political courses, and improve the pertinence and effectiveness of university moral education.

Keywords: Artificial Intelligence; University Ideological and Political Courses; Educational Empowerment; Teaching Reform

1. Introduction

1.1 Research Background and Significance

Digital transformation has reshaped the operational logic and developmental paradigm of modern higher education. Moral education serves as the core foundational component of talent cultivation systems in universities, undertaking fundamental missions of value guidance, ideological shaping and spiritual cultivation for young college students. Traditional instructional models for ideological and political courses rely on fixed curriculum frameworks and unified instructional content. Static classroom delivery fails to match diversified learning demands and individualized cognitive characteristics of contemporary college students. Modern young learners receive multi-dimensional information input through diversified internet channels. Fragmented online

information and diversified social ideologies interfere with the construction of correct values among college learners.

Continuous iteration of artificial intelligence technology including deep learning, natural language processing and generative intelligent models provides new technical carriers and innovative dimensions for the upgrading of university ideological and political education. Intelligent educational technology realizes accurate perception of learning status, adaptive matching of teaching resources and fine-grained teaching effect evaluation. Technical intervention breaks through the spatial and temporal limitations of traditional ideological teaching scenarios. Innovation in educational mode driven by artificial intelligence matches the developmental trend of smart campus construction and digital education reform in global higher education.

Research values of relevant exploration reflect in practical and theoretical dimensions. Theoretical values concentrate on expanding the research boundary of intelligent moral education, supplementing theoretical systems of artificial intelligence empowering curriculum reform, and constructing adaptive theoretical paradigms for digital ideological and political teaching in universities. Practical values lie in promoting structural optimization of university ideological and political course teaching, improving learner participation and recognition of moral education courses, and supporting universities to complete high-quality talent cultivation tasks under digital educational backgrounds.

1.2 Domestic and Foreign Research Review

Foreign academic communities carry out abundant exploration on artificial intelligence assisted higher education reform. Relevant research focuses on intelligent adaptive teaching system development, learner behavior data mining and personalized teaching strategy formulation. Scholars design machine learning algorithms to build student characteristic

portraits covering learning preference, cognitive ability and knowledge mastery status. Intelligent teaching platforms achieve dynamic adjustment of teaching difficulty and content orientation according to real-time learning data. Research achievements verify the positive role of artificial intelligence technology in improving classroom interaction efficiency and optimizing higher education resource allocation. Foreign educational intelligent research focuses on universal higher education teaching optimization. Research systems lack targeted exploration oriented to ideological value guidance and moral education scenarios with Chinese educational characteristics.

Domestic academic research on intelligent ideological and political education maintains continuous growth with the advancement of digital education strategies. Existing papers discuss application scenarios of artificial intelligence in ideological classroom teaching, analyze technical advantages of intelligent teaching equipment and online teaching platforms in moral education practice. Partial research focuses on risk prevention of intelligent ideological education, sorting out potential hidden dangers such as algorithm bias and data privacy leakage in technology application processes. Current domestic research accumulates rich practical experience but remains inadequate in systematic path design. Most research stays at superficial technical application discussion without forming standardized and operable teaching reform systems. Research on deep integration mechanisms between artificial intelligence technology attributes and essential connotations of ideological and political education requires further supplementation.

1.3 Research Ideas, Methods and Innovations

This research takes digital reform of university ideological and political courses as the core clue, artificial intelligence educational empowerment as the theoretical perspective, and practical teaching dilemmas of current university moral education courses as the starting point. Basic theories of intelligent education and ideological education are integrated to clarify internal logical relationships between technology iteration and curriculum reform. Field investigation on intelligent teaching application in university ideological classrooms is combined with existing academic achievements to

summarize practical problems restricting high-quality integration of artificial intelligence and ideological and political courses. Targeted optimization paths and guarantee systems are constructed to promote sustainable development of intelligent ideological and political teaching. Literature analysis and theoretical deduction constitute major research methods of this paper. Mass domestic and foreign literature on intelligent education and digital ideological education is sorted and summarized to lay theoretical foundations for research argumentation. Theoretical deduction methods are adopted to analyze integration adaptability between artificial intelligence technology and ideological teaching essence. Educational investigation method is applied to collect practical feedback of university teachers and students on intelligent ideological teaching reform, ensuring practical pertinence of research conclusions.

Research innovations are reflected in two dimensions. Systematic construction of empowerment paths covers platform construction, teaching mode reform, teacher competency cultivation and institutional guarantee, forming a closed-loop reform system matching actual university teaching scenarios. The research combines cutting-edge generative artificial intelligence technology characteristics with essential requirements of ideological value guidance. Humanistic attributes of moral education are fully considered while exerting technical advantages, avoiding excessive instrumentalization of ideological and political teaching in technology application processes.

2. Theoretical Overview of Artificial Intelligence Empowering University Ideological and Political Courses

2.1 Relevant Theories of Artificial Intelligence Education

Artificial intelligence education refers to educational reform practice relying on machine learning, data mining, natural language processing and other intelligent technologies. Core theoretical connotations originate from educational informatization theory and personalized learning theory. Educational informatization theory emphasizes modern information technology as a core driving force to reconstruct educational elements including teaching content, teaching subjects and teaching

environments. Digital iteration optimizes resource allocation efficiency of modern education and updates traditional educational management logic.

Personalized learning theory advocates differentiated teaching design according to individual cognitive differences of learners. Traditional teaching modes fail to capture individual learning characteristics due to technical limitations. Artificial intelligence technology breaks through such limitations. Multi-dimensional learning data generated in student learning processes can be fully collected and analyzed through intelligent algorithms. Accurate learner portraits support differentiated teaching resource push and adaptive teaching scheme adjustment. Intelligent education theory also includes educational data governance theory. Standardized collection, analysis and application of educational data ensure normative and safe implementation of intelligent teaching reform, maintaining educational essence while realizing technical empowerment.

2.2 Core Connotation of Intelligent Ideological and Political Education in Universities

University intelligent ideological and political education represents a new form of moral education under digital educational backgrounds. Traditional ideological teaching focuses on systematic input of theoretical knowledge and cultivation of students' political literacy. Intelligent ideological and political education retains core missions of value guidance and moral shaping. New educational elements are injected through digital and intelligent technical means. Teaching scenarios expand from offline fixed classrooms to integrated online and offline interactive spaces. Teaching evaluation transforms from single final assessment mode to whole-process dynamic evaluation mode.

Core connotations of intelligent ideological and political education cover multiple dimensions. Intelligent upgrading of educational resources realizes digital transformation of traditional ideological teaching materials and expands diversified resource forms such as virtual simulation cases and intelligent interactive courses. Intellectualization of teaching processes achieves real-time interaction between teachers, students and intelligent teaching terminals, activating classroom teaching atmosphere. Fine management of educational evaluation relies on

data tracking to capture subtle changes in students' ideological cognition and value awareness, realizing precise guidance of moral education work. Fundamental attributes of university ideological and political education remain unchanged under intelligent transformation. Technical tools serve the essential goal of talent value shaping rather than replacing humanistic educational attributes.

2.3 Adaptability of Integration between Artificial Intelligence and University Ideological and Political Courses

Essential consistency of educational goals constitutes the basic premise for integrated development of artificial intelligence technology and university ideological and political courses. University ideological and political courses aim to cultivate college students' correct world outlook, outlook on life and values, shaping high-quality talents with sound political literacy and moral accomplishment. Application of artificial intelligence technology in education targets improving educational quality and optimizing talent cultivation effects. Technical empowerment provides effective auxiliary means for completing moral education goals.

Complementarity of teaching modes enhances integration feasibility. Traditional ideological teaching features strong theoretical systematicness but insufficient interactive experience and individual pertinence. Artificial intelligence technology delivers outstanding advantages in interactive scenario creation and personalized demand matching. Diversified intelligent teaching carriers enrich classroom presentation forms of abstract ideological theories. Students' subjective initiative in ideological learning can be fully stimulated. Expansion of teaching scenarios also improves coverage of ideological and political education. After-class intelligent learning platforms extend value guidance work to daily learning scenarios of students.

Development demands of educational reform provide external driving force for integrated innovation. Modern higher education accelerates digital transformation. All disciplinary teaching promotes intelligent upgrading. Ideological and political courses, as core courses of university moral education, need to keep pace with educational reform trends. Continuous integration with cutting-edge educational technology maintains the timeliness and

effectiveness of ideological teaching, adapting to cognitive habits and information reception modes of contemporary young college students.

3. Development Status and Practical Dilemmas of Artificial Intelligence Empowering University Ideological and Political Courses

3.1 Development Status of Artificial Intelligence Empowering University Ideological and Political Courses

Digital construction of university ideological and political courses achieves phased progress under the promotion of national educational informatization strategies. Most universities complete basic intelligent transformation of ideological teaching environments. Intelligent multimedia classrooms, online teaching platforms and virtual simulation teaching bases cover most campus ideological teaching scenarios. Basic technical conditions support preliminary integration of artificial intelligence and ideological classroom teaching.

Application of intelligent teaching tools becomes increasingly extensive. Many universities adopt intelligent learning auxiliary systems to assist ideological and political teaching work. Course resource libraries, online question banks and learning monitoring systems realize standardized management of daily teaching processes. Generative artificial intelligence tools start to be applied in auxiliary teaching linkages including teaching case expansion and student learning consultation. Partial universities build exclusive intelligent ideological teaching platforms to realize classified push of learning resources according to student learning data.

Teaching reform exploration achieves initial results. Teachers engaged in ideological and political teaching gradually form digital teaching awareness. Innovative teaching schemes combining offline classroom explanation and online intelligent interaction are designed for multiple professional courses. Students' learning enthusiasm for ideological and political courses improves to a certain extent under the support of intelligent teaching scenarios. Digital ideological teaching reform has become a universal developmental trend in domestic university moral education fields.

3.2 Existing Dilemmas of Artificial Intelligence Empowering University

Ideological and Political Courses

Imbalanced construction of intelligent teaching resources restricts reform quality. Intelligent resource construction of university ideological and political courses presents homogenization characteristics. Most digital teaching resources are simple electronic transformation of traditional textbooks. High-quality customized intelligent teaching resources matching different professional characteristics and student groups remain insufficient. Professional design targeting ideological value guidance is lacking in algorithm model setting of intelligent teaching platforms. Technical design fails to fully fit the essential laws of moral education.

Single classroom teaching mode limits technical empowerment effects. Partial teachers simply superimpose intelligent equipment on traditional teaching processes. Core teaching logic and classroom design ideas do not achieve fundamental innovation. Mechanical use of intelligent tools cannot form interactive teaching scenarios with effective value guidance. Students merely complete passive learning tasks on intelligent terminals. Subjective learning experience and ideological cognition improvement fail to reach expected standards.

Insufficient intelligent literacy of ideological teachers restricts reform progress. Partial teachers maintain solid theoretical foundation of ideological education but lack professional operation ability of intelligent teaching equipment and algorithm tools. Awareness of active application of artificial intelligence technology in teaching design is insufficient. Professional training systems targeting intelligent teaching competency of ideological teachers are not perfect in most universities. Teacher competency gaps restrict deep integration of technology and curriculum teaching.

Imperfect institutional guarantee systems bring potential operational risks. Intelligent ideological teaching involves collection and analysis of massive student learning data and ideological behavior data. Standardized data management systems and privacy protection mechanisms are not fully popularized in university campuses. Algorithm bias and excessive data mining may interfere with independent judgment of students' ideological cognition. Institutional deficiencies restrict standardized and sustainable development of intelligent ideological teaching reform.

4. Optimization Implementation Paths of Artificial Intelligence Empowering University Ideological and Political Courses

4.1 Building Intelligent Ideological Teaching Resources and Technical Platforms

University campus intelligent teaching infrastructure construction needs continuous optimization to lay hardware foundation for curriculum intelligent reform. Campus network environment and intelligent classroom hardware facilities should be upgraded comprehensively to meet operational demands of high-precision intelligent teaching algorithms and virtual simulation teaching scenarios. Universities cooperate with professional educational technology institutions to develop exclusive intelligent management platforms for ideological and political courses. Platform functional modules cover resource management, learning monitoring, interactive teaching and effect evaluation to realize integrated management of whole teaching processes.

High-quality differentiated intelligent teaching resources require systematic development. Professional teaching teams composed of ideological teachers and technical developers sort out core theoretical knowledge and key teaching difficulties of ideological courses. Diversified resource forms including virtual teaching cases, intelligent interpretation videos and interactive knowledge tests are developed according to cognitive characteristics of students in different majors. Algorithm models of intelligent platforms are optimized to add value guidance dimension matching ideological education attributes. Accurate pushing of personalized ideological learning resources is realized based on student learning portraits.

4.2 Innovating Classroom Teaching Modes of University Ideological and Political Courses

Traditional single knowledge indoctrination teaching mode needs fundamental innovation under intelligent technical support. Offline classroom teaching introduces virtual simulation scenarios and intelligent interactive terminals. Abstract ideological theories and social hot issues are displayed through visualized and scenario-based teaching forms. Immersive classroom learning experience helps students deepen understanding of theoretical connotations. Online and offline integrated hybrid teaching

modes are constructed. Offline classrooms complete core theoretical explanation and teacher-student interactive discussion. Online intelligent platforms undertake after-class knowledge consolidation, extended learning and personalized question answering work. Generative artificial intelligence tools assist teachers in designing diversified classroom interactive tasks. Intelligent sentiment analysis technology captures students' learning feedback in real time. Dynamic adjustment of classroom teaching progress and content focus improves teaching pertinence and flexibility.

4.3 Constructing Intelligent Literacy Training System for Ideological Teachers

Systematic teacher training mechanisms need to be established to improve digital teaching competency of ideological teachers. Universities set up special training courses covering intelligent teaching equipment operation, educational data analysis and intelligent teaching scheme design. Regular offline training and online open courses are combined to realize full coverage of teacher competency training.

Teacher teaching innovation incentive mechanisms are optimized. Teaching achievement evaluation systems incorporate intelligent teaching reform practice results. Teachers are encouraged to carry out independent exploration of intelligent curriculum reform and participate in intelligent teaching competition and project research. Cross-disciplinary communication platforms are built for ideological teachers and technical teachers. Professional technical support assists continuous innovation of intelligent teaching design.

4.4 Improving Intelligent Teaching Guarantee Mechanisms of Ideological and Political Courses

Standardized data governance and privacy protection mechanisms need comprehensive improvement. Universities formulate unified management specifications for collection, storage and application of student educational data. Clear boundary standards of data mining are defined to avoid excessive collection of personal private information. Professional technical teams conduct regular detection and optimization of intelligent teaching algorithms to reduce algorithm bias risks and maintain fairness and rationality of teaching evaluation.

Multi-party collaborative guarantee systems are constructed. University educational management departments, college teaching units and social educational technology institutions cooperate jointly. Long-term cooperative relationships provide continuous technical support and resource update services for intelligent ideological teaching reform. Supervision and evaluation mechanisms of intelligent teaching quality are improved. Whole-process tracking and assessment of curriculum intelligent reform effects provide iterative optimization basis for subsequent teaching reform practice.

5. Conclusion

Integration of artificial intelligence technology and university ideological and political courses conforms to the general trend of digital reform of modern higher education and high-quality development of moral education undertakings. Technical iteration provides new innovative paths for solving rigid teaching modes and insufficient personalized guidance in traditional ideological teaching. Current intelligent reform practice of university ideological and political courses obtains preliminary achievements in platform construction and mode innovation. Practical dilemmas including homogeneous resource construction, single teaching mode, insufficient teacher competency and imperfect institutional systems still restrict deep development of curriculum reform.

Effective integration between artificial intelligence technology and ideological and political teaching needs comprehensive optimization from platform construction, mode innovation, teacher cultivation and institutional guarantee. Construction of high-quality intelligent teaching resources and professional technical platforms consolidates hardware foundation for curriculum reform. Innovative hybrid teaching modes activate classroom teaching vitality. Systematic teacher training mechanisms improve core competency of intelligent teaching reform. Standardized institutional guarantee systems maintain normative and safe development of intelligent moral education work. Multi-dimensional path coordination promotes comprehensive intelligent upgrading of university ideological and political courses. Sustainable improvement of teaching quality provides powerful support for modern university talent moral cultivation.

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