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Exploration of Precise Teaching Pathways for Integrating Ideological and Political Education into University Economics and Management Courses via AI Technology

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Abstract: The deepening implementation of educational digitalization strategies, coupled with the rapid advancement of artificial intelligence (AI) technology, has opened up new possibilities for achieving precision-oriented ideological and political education in economics and management courses. Currently, such education faces three practical challenges: value disconnection, fragmented competency development, and a lack of feedback mechanisms; consequently, traditional teaching approaches often fail to organically integrate value guidance, knowledge transmission, and competency cultivation. Building upon a rigorous definition of "precision-oriented teaching," this study constructs a three-stage integration model— "value–knowledge–competency" —and employs a data chain to vertically connect the value guidance layer, the knowledge construction layer, and the competency cultivation layer, thereby establishing a closed-loop, interconnected educational system. On this foundation, the study systematically designs AI-driven implementation pathways for precision-oriented teaching across three instructional phases—pre-class, in-class, and post-class—supported by a collaborative learning community comprising "teacher–student–AI" and corresponding safeguard mechanisms. This research demonstrates that AI technology serves as a pivotal variable in transitioning course-based ideological and political education from an "experience-driven" paradigm to a "data-evidenced" approach, and from a "linear additive" model to a "spiral symbiotic" framework. Furthermore, AI can provide systematic pathway references to overcome the three key difficulties in integrating such education into economics and management curricula: integration challenges, evaluation challenges, and coherence challenges.

Keywords: AI Technology; Economics and Management Courses; Ideological and Political Education in Curriculum; Precision Teaching.

1. Introduction

Curriculum-based ideological and political education constitutes a strategic initiative for higher education institutions in the new era to fulfill the fundamental task of fostering virtue through education. In 2020, the Ministry of Education issued the *Guiding Outline for the Development of Curriculum-Based Ideological and Political Education in Higher Education Institutions*, which explicitly called for "innovating classroom teaching models and promoting the application of modern information technology in curriculum-based ideological and political education," requiring the integration of value shaping, knowledge transmission, and competency cultivation [1]. Business and economics disciplines occupy a distinctive position within this framework: on one hand, these courses account for 70%–80% of the undergraduate curriculum, making them the primary arena for implementing curriculum-based ideological and political education; on the other hand, these disciplines exhibit distinct social attributes and value orientations—complex issues such as interest conflicts in business decision-making, cultural integration in corporate mergers and acquisitions, and data integrity in information disclosure all necessitate that practitioners possess sound value judgment and a clear sense of professional ethical boundaries.

Meanwhile, artificial intelligence (AI) technology is profoundly reshaping the landscape of education. Since 2025, the Ministry of Education and eight other government departments have jointly issued the *Opinions on Accelerating the Digital Transformation of Education*; in 2026, the Ministry of Education and five other departments further released the * "AI + Education" Action Plan*. Both documents emphasize leveraging digital empowerment to foster deep integration between education and AI, thereby providing clear policy guidance and technological opportunities for the reform of curriculum-based ideological and political education in economics and management courses. In light of this, this study focuses on precise teaching pathways for curriculum-based ideological and political education in economics and management courses driven by AI technology. Specifically, it constructs a three-stage integration model— "values–knowledge–competencies" —and proposes systematic implementation strategies spanning the entire instructional cycle: pre-class, in-class, and post-class phases. Additionally, it introduces a collaborative educational support mechanism involving "teachers–students–AI systems," aiming to establish a theoretical framework and practical reference for transitioning curriculum-based ideological and political education in economics and management courses from an "experience-driven" approach to a "data-driven" paradigm.

It should be noted that "precision teaching" is not merely simple personalized content delivery aided by technology; rather, it is an instructional organizational approach grounded in data-driven evidence and centered on value cultivation. In alignment with the educational objectives of integrating ideological and political education into economics and

management courses, this paper defines precision teaching as comprising four interconnected stages: precise identification, precise delivery, precise evaluation, and precise intervention. This definition serves as the logical starting point for constructing the model presented in the subsequent sections.

2. The Necessity of Leveraging AI Technology to Enable Targeted Ideological and Political Education in Business and Management Courses

2.1. Policy Guidance and Technology-Driven Approaches

The report to the 20th National Congress of the Communist Party of China explicitly put forward the strategic deployment to "advance the digitalization of education." At the 2024 National Education Conference, General Secretary Xi Jinping further called for "thoroughly implementing the national education digitalization strategy." From a policy perspective, education digitalization has evolved from a "optional measure" to a "mandatory requirement." Policy documents such as the *Opinions on Accelerating the Digitalization of Education* and the * "Artificial Intelligence + Education" Action Plan* provide clear directional guidance for the digital transformation of curriculum-based ideological and political education.

Meanwhile, the capabilities of AI technology itself are rapidly maturing. Natural language processing can perform semantic understanding and sentiment analysis on ideological and political educational texts; knowledge graph technology can establish structured association models linking professional knowledge with ideological and political elements; sentiment analysis technology can monitor students 'learning states and emotional tendencies in real time; and learning analytics technology can extract valuable instructional insights from multimodal data. The maturation of these technological capabilities has provided a practical technical foundation for integrating ideological and political education into curricula—shifting from a phase of "vague exploration" reliant on individual teachers' experience to a phase of "precision targeted intervention" grounded in data-driven evidence. It should be emphasized that the purpose of technological integration is not to replace teachers' value judgments with algorithms, but rather to equip teachers with more comprehensive and timely instructional insights, thereby fostering human-machine collaboration as a synergistic force to enhance the effectiveness of educational outcomes [2].

2.2. The Specific Characteristics of Integrating Ideological and Political Education into Business and Management Courses

Economics and management disciplines possess distinct social attributes and value orientations, and their implementation of curriculum-based ideological and political education entails specific requirements that differ from those of science and engineering disciplines. In the context of rapid advancements in the digital economy and artificial intelligence, routine procedural tasks—such as bookkeeping and accounting—are increasingly being replaced by intelligent algorithms. However, complex issues in business decision-making—such as interest conflicts, cultural integration in corporate mergers and acquisitions, and data privacy concerns within financial ethics—still demand that practitioners possess a high degree of value judgment, a deep respect for the rule of law, and a strong sense of professional ethical boundaries. The *Guiding Outline for Curriculum-Based Ideological and Political Education in Higher Education Institutions* explicitly requires the integration of value cultivation, knowledge impartation, and competency development; for economics and management disciplines, this requirement is particularly urgent. The cultivation of talent in these fields should not merely focus on technical proficiency—such as the ability to operate algorithmic models—but should instead foster integrated capabilities to identify ethical conflicts and conduct value-based trade-offs within complex situational contexts [3][4].

However, based on teaching practice, the current implementation of ideological and political education in economics and management courses still faces practical challenges, including abstracted values, fragmented competency development, and a lack of feedback mechanisms. Traditional approaches are often inadequate to achieve these educational objectives, which in turn creates a practical need for the integration of AI technology.

3. Practical Challenges in Targeted Ideological and Political Education for Business and Management Courses

3.1. Value Suspension

The issue of "value suspension" stands out as the most prominent challenge in integrating ideological and political education into current economics and management courses, manifesting as a disconnect between ideological and political elements and professional knowledge [5]. For instance, when teaching economic principles, some instructors habitually append brief statements on social responsibility at the end of their lectures—a "labeling" approach—without appropriately integrating ideological and political elements such as business ethics, patriotism, and social responsibility into the explanation of professional principles. The underlying reason is that the knowledge framework of economics and management courses is centered on instrumental rationality and efficiency logic, whereas ideological and political education is grounded in value rationality and meaning construction; these two frameworks differ fundamentally in their logical structures, and there remains a lack of effective methods to integrate them. Consequently, although students may "hear" such ideological and political discourse, they often struggle to internalize it as professional convictions and value identities.

Simultaneously, this "floating" phenomenon also manifests in the digitalization of curriculum-based ideological and political education. In recent years, numerous universities have invested substantial resources to develop a suite of technological tools—including curriculum-based ideological and political education resource repositories, intelligent recommendation systems, and virtual simulation platforms—and have widely deployed these tools on campus. However, the practical application of these tools has often remained at relatively superficial levels, such as resource distribution and classroom interaction, without yet effectively addressing deeper core challenges—such as "precisely identifying

students' value-related uncertainties" and "dynamically aligning ideological and political elements with specialized disciplinary knowledge." Consequently, the digitalization of curriculum-based ideological and political education has overall encountered a practical dilemma: while there is considerable effort and enthusiasm in building platforms, there remains a relative scarcity of concrete practices that achieve deep integration and precise adaptation of ideological and political education content with professional knowledge. This situation constrains the full potential of digital tools in enhancing the effectiveness of student cultivation.

3.2. Competency Fragmentation

The cultivation of talent in new business disciplines requires us to systematically construct a core competency framework in educational practice, anchored by three key pillars: "interdisciplinary competence, innovation capability, and a sense of responsibility." However, an examination of the current teaching landscape of economics and management courses reveals a prominent structural issue: the development of three critical competencies—data analysis skills, business decision-making skills, and value judgment—has been fragmented across disparate course modules. These competencies are trained in isolation, lacking the necessary interdisciplinary integration and synergistic linkage. This decentralized, modular training approach means that when confronted with complex and dynamic real-world business scenarios, students—despite having mastered various analytical tools and the ability to apply them technically—may struggle to keenly identify potential ethical conflicts in specific contexts, nor do they possess the comprehensive competency to prudently weigh diverse value orientations. Consequently, an artificial divide emerges between technical rationality and value rationality: students tend to prioritize operational efficiency and precision at the tool level, while neglecting the deeper ethical dimensions and social responsibilities inherent to decision-making. This ultimately leads to an imbalance in their overall competency structure, rendering them ill-equipped to meet the high standards set by the new business landscape for interdisciplinary, innovative, and responsible professionals.

Structural deficiencies in teacher competency and cross-subject collaborative mechanisms further exacerbate this predicament. On one hand, most instructors of economics and management courses draw primarily from specialized academic training backgrounds; they often lack sufficient expertise in ideological and political theoretical literacy, as well as in the design of curriculum-based ideological and political education, making it difficult for them to design and implement integrated teaching approaches that bridge professional knowledge acquisition with value guidance. On the other hand, the effective implementation of curriculum-based ideological and political education relies on coordinated efforts among subject-specific instructors, instructors of ideological and political courses, and student affairs systems. In practice, however, a fragmented approach prevails—where each party operates in isolation—while cross-departmental collaborative mechanisms remain underdeveloped. This further reinforces the fragmented teaching landscape, characterized by compartmentalized and siloed instructional models.

3.3. Lack of Feedback

The implicit educational effects of value identification and emotional attitudinal development are difficult to quantify using traditional examination scores. Current assessment practices for economics and management courses predominantly focus on knowledge and competency objectives—typically assessed through rote memorization, comprehension, essay writing, and case analysis—yet there remains a lack of concrete scenarios and effective evaluation tools to assess implicit educational outcomes such as ethical judgment, social responsibility, and emotional recognition. This gap often results in students "meeting skill benchmarks but lacking value orientation." Post hoc evaluation methods, such as questionnaire surveys and end-of-term reflective essays, not only entail long feedback cycles but are also susceptible to the influence of social approval bias, making it difficult to accurately capture students 'evolving value cognitions. Furthermore, existing evaluation systems tend to prioritize outcome-based assessments, while lacking dynamic tracking and process-oriented management. More critically, traditional evaluation approaches lack the capability to monitor students' ideological trajectories and emotional fluctuations in real time; consequently, instructors struggle to identify students' cognitive bottlenecks and emotional tipping points during their learning journey, which in turn hinders the ability to tailor teaching methods to individual needs and to intervene in value guidance promptly and precisely.

Three intertwined and nested dilemmas continuously generate mutually reinforcing effects within a dynamic cycle, collectively forming a complex predicament that is difficult to resolve. At its root, the core issue lies in the prolonged over-reliance of curriculum-based ideological and political education on the subjective experiential accumulation of individual teachers, resulting in an overall operational state characterized by ambiguity, randomness, and lack of standardization. This traditional operational model lacks a data-driven support system—one that is perceptible, diagnosable, and intervenable—thereby making it difficult to explicitly identify genuine challenges in the teaching process, and hindering the scientific and efficient management of teaching quality and outcomes. These pain points and existing research gaps, in turn, create both an opportune window and extensive potential for the application of artificial intelligence technologies, centered on intelligent data analysis and pattern recognition.

4. Practical Pathways for Implementing Targeted Ideological and Political Education in Economics and Management Courses via AI Technology

4.1. Pre-class Preparation Pathway: Resource Foundation and Student Profiling

The application value of AI-driven teaching strategies in the cultivation of educational talent has garnered attention from international scholars; the key lies in establishing a seamless, end-to-end design that encompasses pre-class assessment, in-class environment creation, and post-class follow-up. As the starting point of the teaching process, pre-class preparation fulfills two critical objectives: building a robust resource foundation and conducting preliminary assessments of student learning profiles.

In terms of resource development for curriculum-based ideological and political education, traditional approaches

predominantly relied on a static "resource repository" model. In this model, instructors categorized and stored materials—such as ideological and political case studies, videos, and academic documents—and conducted manual searches; the associations between these resources and specific knowledge points were static and linear, making it difficult to meet the personalized needs of students. Under the current context of educational digitalization and intelligence, the development of such resources should instead shift toward creating high-quality, reconfigurable, and precisely tailored resources [6]. This paper proposes an innovative approach to constructing a dynamic knowledge graph for integrating ideological and political education into economics and management courses. By leveraging both natural language processing (NLP) and knowledge graph technologies, this approach systematically and structurally decomposes the specialized knowledge content of these courses alongside their key ideological and political value points, establishing bidirectional annotated relationships between the two. Building upon this foundation, we further develop a interconnected knowledge network system—comprising "knowledge points, ideological and political points, and competency points" —that spans the diverse modules of various courses. Compared to traditional static resource repositories, this dynamic knowledge graph offers distinct advantages: its internal relational structures can be continuously optimized and adjusted based on student learning data. Moreover, by accounting for individual differences in students' comprehension of course content and their actual learning capabilities, this graph enables the customization of personalized learning resource libraries. Consequently, students can acquire essential knowledge in a more efficient manner, thereby enhancing their overall learning outcomes.

Building upon the development of educational resources, the AI system conducts pre-class diagnostic assessments of student learning profiles in real time. By leveraging data collected from the learning platform—including pre-study test scores, time spent on material reading, and participation in discussion forums—the AI system generates both a comprehensive overview of the class's overall learning status and individualized learning profiles for each student. This process identifies the specific knowledge areas where students encounter difficulties, as well as the value-related issues in which they hold ambiguous understandings; based on these insights, the system provides teachers with tailored instructional strategy recommendations and assigns personalized pre-study tasks to students. The matching and recommendation of ideological and political education resources likewise rely on these student profiles. By integrating a student's academic major, current learning stage, cognitive level, and value orientation, the system employs a bidirectional matching algorithm to intelligently deliver differentiated ideological and political learning materials. For senior students who already possess foundational data analysis skills, the system provides case studies involving in-depth discussions on data ethics; for lower-grade students newly entering specialized courses, it offers value-based scenarios relevant to their daily economic lives. This differentiated resource delivery approach overcomes the limitations of a "one-size-fits-all" resource allocation model, while also establishing a cognitive baseline and a value starting point for precise in-class guidance and assessment.

4.2. In-Class Implementation Pathways: Contextual Scenario Development and Process Evaluation

The in-class phase is the core segment of value guidance. In class, AI primarily enters the classroom as a context generator and role simulator: on the one hand, AI can automatically generate business cases containing authentic value conflicts; these cases are not static textual materials but interactive scenarios that can be dynamically adjusted based on students' in-class responses. On the other hand, AI can play the roles of various stakeholders—such as corporate managers, consumers, regulators, and community representatives—to engage in dialogue with students, compelling them to experience ethical dilemmas from multiple perspectives and to conduct in-depth critical thinking.

The in-class phase likewise follows the logic of dynamic resource supply. Through the immediate backflow and real-time analysis mechanisms of classroom interaction data, the dynamic knowledge graph can continuously adjust the associative weights between core course knowledge points and ideological and political education elements. When the system identifies that students face widespread or universal difficulties in achieving deep understanding of a particular value issue, it automatically triggers a resource expansion and optimization mechanism, presenting professional case scenarios from more dimensions, diverse argumentation perspectives, and rich factual materials, thereby effectively compensating for the cognitive blind spots that may result from single-mode lecturing. This approach to resource supply based on real-time data feedback enables teaching resources to consistently align with the changing demands of actual teaching scenarios throughout the progression of classroom instruction, avoiding lag or misalignment in content supply. As a result, the integration pathway of ideological and political elements achieves a fundamental shift from a static, fixed model of "preset push" to a dynamic, adaptive model of "on-demand triggering."

Driven by both value orientation and resource assurance, artificial intelligence (AI) technology has been effectively integrated into the real-time flow of classroom teaching through the implementation of formative assessment mechanisms. By leveraging the advanced technology of affective computing, these systems can comprehensively collect multidimensional data—including interactive behaviors in the classroom, textual comment content, and multimodal behavioral characteristics—enabling precise identification and dynamic monitoring of students' emotional state fluctuations and their underlying value orientations. Relevant academic research has already demonstrated, from the specific perspective of "assessment," that AI can significantly enhance the scientific rigor, accuracy, and objectivity of instructional evaluation [7]. Furthermore, the real-time data feedback generated in the classroom not only provides teachers with reliable empirical evidence to promptly adjust their teaching strategies and implement immediate interventions, but also accumulates continuous and rich process-based data for in-depth post-classroom diagnosis and instructional improvement. This, in turn, creates favorable conditions for the dynamic optimization and sustained enhancement of overall teaching quality.

4.3. Post-class Development Pathways: Expansion, Tracking, and Developmental Diagnosis

Post-class development serves as an extended phase in the process of value internalization and competency externalization. Leveraging students 'classroom performance and assignment completion records, AI generates personalized tasks that encourage learners to translate the value judgments acquired during class into behavioral decisions within real-world contexts. Simultaneously, the system tracks students' cognitive evolution regarding the same value-related topics across different stages, thereby creating longitudinal growth portfolios. These portfolios provide a foundation for adjusting subsequent teaching strategies and updating learner profiles for new instructional cycles. Furthermore, this study proposes a three-dimensional evaluation metric system—comprising "value identification degree," "knowledge transfer degree," and "competency performance degree" —to holistically assess student development across cognitive, affective, and behavioral dimensions, while integrating this assessment with longitudinal growth portfolios. Utilizing learning analytics techniques, the system tracks incremental value growth from a longitudinal perspective, evaluating changes in students 'value cognition throughout their course participation. Based on this process-oriented longitudinal tracking, the AI system generates personalized development diagnostic reports for each student, along with targeted improvement recommendations and tailored subsequent learning path planning. This approach establishes an intelligent governance closed-loop comprising "perception—diagnosis—intervention—optimization." Such an evaluation paradigm achieves a fundamental shift from "summative assessment" to "developmental guidance," transforming evaluation from merely a means of measuring instructional effectiveness into an effective tool for fostering students' value growth.

Post-class evaluation data is synchronized to inform resource development. The dynamic knowledge graph continuously optimizes the association weights based on assignment results, assessment outcomes, and diagnostic data. When the system identifies widespread difficulties among students in understanding specific value-related topics within a particular knowledge module, it automatically strengthens the connections between that knowledge point and relevant ideological and political education cases. Furthermore, it tailors personalized resource libraries according to individual student characteristics, ensuring that resource provision in the next pre-class resource development phase better aligns with actual teaching practices. This approach enables a closed-loop iterative process spanning the pre-class, in-class, and post-class phases of instruction.

Taking the "Corporate Mergers and Acquisitions" module of the *Financial Management* course as an example: prior to the lesson, the AI generates a student learning profile based on data such as pre-class quiz scores, contributions to discussion forums, and study time; this analysis reveals that a significant number of students hold a singular view regarding "interest maximization" in M&A, while their understanding of issues such as antitrust regulations and employee rights remains limited. Consequently, the AI promptly provides instructors with a targeted intervention plan titled "Cultural Integration and Social Responsibility." During the lesson, the AI constructs a three-party dialogue scenario involving "the management of the acquiring firm, employee representatives of the target firm, and antitrust regulatory authorities," in which students assume different roles to engage in debates. Through specific dilemmas—such as "prioritizing efficiency or prioritizing responsibility," and "balancing restructuring and layoffs against employment stability" —students experience the tensions among cultural integration, social responsibility, and commercial efficiency; simultaneously, the system systematically records changes in students 'value expressions and selection of arguments. After the lesson, the AI generates personalized extension tasks based on students' role performances and discussion data—such as drafting M&A decision proposals incorporating value justification, or reflecting on their own value hierarchies in decision-making—thereby continuously tracking the trajectory of their value internalization. This design integrates value conflicts into authentic professional contexts, achieving the unification of knowledge acquisition, skill development, and value cultivation.

In summary, the three phases—pre-class diagnostic assessment, in-class scenario-based instruction, and post-class follow-up—are seamlessly linked via a data chain to form a complete closed loop: the pre-class phase establishes a precise foundation by leveraging resource-based groundwork and preliminary analysis of student learning profiles; the in-class phase provides value guidance through scenario creation and process-based evaluation; the post-class phase facilitates the externalization of these values via extended tasks and developmental diagnostics.

5. Construction and Support Measures for a "Teacher–Student–Resource" Collaborative Learning Community

5.1. A Tripartite Ecosystem of Teachers, Students, and AI Agents

Unlike traditional curriculum-based ideological and political education—which relies solely on a one-way knowledge transmission from teachers—this paper proposes the construction of an AI-empowered collaborative learning community consisting of "teacher–student–AI agent": an AI agent, acting as a "third mentor," is embedded within teaching scenarios, forming a collaborative educational structure alongside teachers (as learning assistants) and students (as learners). In this framework, teachers take the lead in defining value orientations and instructional decisions, transitioning from mere knowledge dispensers to value guides and instructional designers; students serve as the primary agents of value construction, engaging in value judgment and competency development within authentic commercial contexts; and the AI agent fulfills auxiliary functions—including emotional and cognitive support for learners, resource matching, scenario generation, and process tracking—providing data support and real-time feedback to the former two parties. Linked by a data chain, this tripartite structure dismantles the boundaries between specialized courses and ideological-political education, between classroom learning and commercial practice, and between institutional training and societal demands. It facilitates a shift in the delivery of ideological and political elements—from "predefined push" to "on-demand triggering," embodying the principle of collaborative education involving all stakeholders, across the entire educational process, and in all

dimensions. At the model level, this structure is manifested through the distinct roles and dynamic coordination of the value-guidance layer, the knowledge-construction layer, and the competency-forging layer.

5.2. Value Orientation and Ethical Standards

In terms of value guidance, we should adopt Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era and the spirit of the 20th National Congress of the Communist Party of China as the core guiding principles to steer overall efforts, thereby solidifying the value foundation of curriculum-based ideological and political education. Throughout key AI-enabled phases—including the construction of knowledge graphs, in-depth analysis of student learning profiles, and intelligent generation of teaching scenarios—we should systematically integrate orientation mechanisms based on socialist core values. This ensures that the entire AI-assisted teaching process remains aligned with the fundamental purpose and mission of fostering virtue through education. Simultaneously, the development of AI applications in education urgently requires the establishment of a clear and comprehensive ethical regulatory framework. The "AI Education Ethics: Reference Framework," officially released in 2026, establishes forward-looking and guiding core principles: "human-centered approach, collaborative coexistence, context-appropriate benevolence, and differentiated governance." It systematically and clearly delineates the potential types of risks in AI-powered educational applications, the basic principles for liability assessment, and the specific boundaries—and dynamic adjustment mechanisms—for three categories of conduct: "prohibited use, limited use, and encouraged use." Consequently, this framework provides comprehensive and actionable guidelines for ethical governance in leveraging AI to enhance curriculum-based ideological and political education.

5.3. Institutional Support and Data Governance

Regarding institutional support, universities should establish a multi-level organizational structure comprising cross-departmental collaborative working groups, complemented by appropriate operational mechanisms. By breaking down entrenched silos, institutions can foster information sharing and operational collaboration among various departments, thereby creating a powerful synergistic force for student development. Furthermore, universities should refine the evaluation and incentive mechanisms for integrating ideological and political education into curricula by incorporating the tangible outcomes of AI-enabled initiatives into the teaching quality assessment framework, treating these outcomes as key indicators of instructional effectiveness. Simultaneously, universities must establish systematic data security and ethical review frameworks, clearly defining the boundaries for the collection, use, and storage of student learning data. This includes formulating ethical guidelines and technical standards covering critical areas—such as data collection processes, usage protocols, and privacy protection—to ensure that technological applications remain scientifically sound, compliant, and secure. Within such collaborative ecosystems, the operational integrity of the data chains upon which AI agents rely is fundamentally contingent upon data compliance: only by strictly subjecting the scope of data collection, the purposes of data utilization, and the retention periods of student learning data to institutional constraints can "precision" avoid deviating toward "data surveillance," thereby ensuring that the original mission of student development is robustly safeguarded by institutional mechanisms.

5.4. Team Development and Competency Enhancement

Regarding faculty development, systematic planning and strategic design should be undertaken to establish a specialized training curriculum system that deeply integrates "curriculum-based ideological and political education" with artificial intelligence. This system should target faculty members in economics and management disciplines, providing training content organized into multiple modules—including foundational explanations of AI principles, the establishment of ethical boundaries and standards, concrete application methods of AI tools across diverse teaching scenarios, and instructional design strategies in human-machine collaborative environments. Through such modular learning, the objective is to comprehensively enhance faculty members' professional competence and capabilities in integrating technological application, instructional design, and value guidance. Simultaneously, interdisciplinary and cross-departmental teaching innovation teams should be formed to facilitate the gradual transformation of faculty members from traditional knowledge transmitters into versatile educational professionals equipped with capabilities in value guidance, technological proficiency, and collaborative student development. Only when faculty members truly gain a profound understanding of AI technology and master its application, while steadfastly upholding value orientation in their teaching practices—ensuring that the educational community comprising "teacher–student–AI" consistently adheres to the fundamental principle of "human-machine collaboration with student development as the priority" —can the educational functions across all teaching phases—pre-class preparation, in-class interaction, and post-class reinforcement—be sustained and reliably realized. Ultimately, this approach will achieve deep integration and synergy between pedagogical cultivation and technological empowerment.

6. Conclusion

This paper focuses on precise teaching pathways for integrating ideological and political education into economics and management courses driven by AI technology. It analyzes three prevailing practical challenges currently faced by such courses: value disconnection, fragmented competency development, and lack of feedback mechanisms. The study constructs a three-stage integration model— "Value–Knowledge–Competency" —and proposes a systematic implementation framework spanning three instructional phases: pre-class, in-class, and post-class. The research posits that AI technology serves as a pivotal variable in transitioning course-based ideological and political education from an "experience-driven" approach to a "data-driven" paradigm, and from "linear superposition" to "spiral coexistence." Furthermore, AI does not merely replace teachers; rather, it functions as a "third mentor," integrating into a collaborative educational ecosystem comprising "teachers–students–AI."

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