Technological Embodiment and Value Return: The Logical Path of Generative AI Empowering Scenario-based Teaching in University Ideological and Political Courses

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Abstract: In the deep water zone of digital transformation in education, Generative Artificial Intelligence (Generative AI), with its powerful content generation capabilities, multimodal interaction characteristics, and human-like logical reasoning abilities, provides a new technological embodiment field for the reform of scenario-based teaching in university ideological and political theory courses (Civics Courses). Traditional teaching in these courses often faces a rupture between abstract theory and concrete experience. Generative AI, by constructing immersive, interactive, and generative teaching scenarios, realizes a cognitive shift from "disembodied" knowledge to "embodied" knowledge. However, the deep embedding of technology also triggers ethical risks such as algorithmic bias, information cocoons, and the alienation of subjectivity, posing severe challenges to the value-leading function of ideological and political education. Based on the perspectives of technological phenomenology and Marxist humanism, this paper deeply analyzes the internal mechanism of Generative AI empowering scenario-based teaching in Civics Courses, dialectically examines the dilemma of "technological overreach" it may encounter, and explores practical paths for unifying technological empowerment with the essence of education from three dimensions: the reshaping of subjects through human-machine synergy, the ethical regulation of algorithmic governance, and the return of value rationality. This aims to provide theoretical support and action reference for the high-quality development of university ideological and political courses in the new era.

Keywords: Generative AI, University Ideological and Political Courses, Scenario-based Teaching, Technological Embodiment, Value Return, Human-Machine Synergy.

1. Origin of the Problem: The Tension between Digital Survival and Civics Teaching in the New Era

Currently, the explosive growth of Generative Artificial Intelligence technologies, represented by ChatGPT and Sora, marks the official entry of human society into a new era of "Intelligence Augmentation." Technology is no longer merely an external tool for humans to transform the world but is increasingly internalized as an "embodied" organ for humans to perceive, understand, and even reconstruct the world. General Secretary Xi Jinping clearly pointed out at the National Education Conference: "We must use new media and new technologies to enliven our work and promote the high integration of the traditional advantages of ideological and political work with information technology." [1] This important exposition points out the direction for the innovative development of university ideological and political education in the new era.

However, positioned within the landscape of digital survival, teaching in university Civics Courses is facing unprecedented tension of the times. On one hand, contemporary college students, as "digital natives," have thinking patterns, cognitive habits, and emotional expressions that are deeply imbued with the logic of the Internet. They are accustomed to fragmented, visual, and interactive modes of information acquisition and have a natural sense of alienation and rejection toward traditional unidirectional, inculcation-style theoretical lectures. On the other hand, as key courses for implementing the fundamental task of fostering character and civic virtue, Civics Courses bear the political mission of shaping values and transmitting ideology. There has long been an irreconcilable contradiction between the seriousness of their content, the profundity of their theory, and the vividness of their teaching forms.

Scenario-based Teaching, as a pedagogical paradigm emphasizing situational construction, emotional experience, and practical interaction, is seen as an effective way to resolve the aforementioned contradictions. However, under traditional teaching conditions, the construction of scenarios is often constrained by limitations in physical space-time, resource costs, and technical means, making it difficult to achieve true immersion and empathy. The emergence of Generative AI, with its creative generation capabilities surpassing traditional retrieval-based AI, provides the technological possibility to break through this bottleneck. Through natural language processing, computer vision, and deep learning technologies, it can generate text, images, videos, and even virtual simulation environments in real-time, transforming abstract political theories into perceptible and interactive concrete scenarios, thereby greatly expanding the teaching boundaries of Civics Courses.

But technology is a double-edged sword. While cheering for the educational dividends brought by Generative AI, we must maintain a sober rational scrutiny: Will technology

dissolve the ideological depth of Civics Courses? Will algorithms obscure the value radiance of mainstream ideology? Will human-machine interaction alienate the intersubjectivity between teachers and students? This paper attempts to step out of a purely instrumentalist perspective and, starting from the ontological height of "Technological Embodiment," explore the logical necessity of Generative AI empowering scenario-based teaching in Civics Courses. Furthermore, addressing the potential value deviations it may trigger, this paper proposes a practical path of "Value Return," aiming to provide a theoretical response for building a new ecosystem of ideological and political education where technology and value are deeply integrated.

2. Theoretical Horizon: Paradigm Shift from "Disembodied Cognition" to "Technological Embodiment"

To deeply understand the empowering mechanism of Generative AI on scenario-based teaching in Civics Courses, it is first necessary to clarify the paradigm shift at the level of cognitive science and philosophy of technology, that is, the shift from traditional "Disembodied Cognition" to "Embodied Cognition," and the "embodied" role technology plays therein.

2.1. The "Disembodied" Dilemma of Traditional Civics Teaching

Traditional cognitive psychology views cognition as a computational processing of symbols by the brain, where the mind and body are dualistic, and the cognitive process is independent of the body and its environment. Influenced by this, traditional Civics teaching often falls into the trap of "Disembodied Cognition":

Separation of Knowledge and Context: The teaching process is simplified into the transmission and memorization of knowledge points. Marxist theory is extracted from the historical context and realistic soil in which it was generated, becoming dry dogma. Students act as "bystanders" in the classroom; lacking a sense of presence, it is difficult for them to genuinely identify with the theory.

Rupture between Body and Thought: Teaching activities mainly appeal to students' hearing and abstract thinking, ignoring the foundational role of bodily perception and emotional experience in value internalization. This "disembodied" teaching leads to a disconnection between "knowing, feeling, willing, and acting." Students often know "what it is" but not "why it is," and it is even harder for them to "believe in the way."

Unidirectional Linear Propagation: The teacher-student relationship is solidified into a linear structure of "transmission-reception," lacking bidirectional interaction based on a shared context, leading to insufficient affinity and pertinence in ideological and political education.

2.2. Technological Embodiment: An Ontological Interpretation of Generative AI

Embodied Cognition theory emphasizes that cognition is the result of the interaction between the body, the brain, and the environment. Technology philosopher Don Ihde further proposed the "Technological Embodiment" relation, where technology acts as an extension of the body, changing the way humans perceive the world. The application of Generative AI in Civics teaching is the ultimate manifestation of this "Technological Embodiment":

Extension of Perception and Reshaping of Presence: Generative AI is not merely a container of information but a prosthesis of perception. Through VR/AR, holographic projection, and video generation technologies like Sora, AI can break space-time barriers and "move" red historical sites and scenes of national construction achievements into the classroom. Through technological mediation, students can touch the pulse of history "immersively." This "quasi-presence" experience transforms abstract grand narratives into individual embodied perceptions, greatly enhancing the depth and breadth of cognition.

Generation of Interaction and Extension of Subjectivity: Unlike the passive reception of traditional media, Generative AI possesses powerful "human-machine dialogue" and "content generation" capabilities. In teaching scenarios, students can engage in cross-space-time dialogues with virtual historical figures (such as the Digital Marx generated by AI) through natural language or conduct decision-making drills in moral dilemmas constructed by AI. This strong interactivity extends students' subjectivity unprecedentedly, making technology a partner for students in exploring truth and constructing meaning.

Offloading of Cognition and Augmentation of Thinking: Generative AI can undertake heavy tasks of information retrieval, data organization, and preliminary logical construction, realizing "cognitive offloading." This frees up the energy of teachers and students to focus on higher-order value judgments, critical thinking, and emotional resonance. This "intelligence augmentation" is not a replacement for humans but a leap in thinking under human-machine coupling, providing intellectual support for the development of Civics Courses toward "higher-order" learning.

Therefore, Generative AI empowering scenario-based teaching in Civics Courses is essentially a cognitive revolution. Through the embodied operation of technology, it sutures the rifts between knowledge and context, body and thought, history and reality, providing solid ontological support for the construction of "Grand Civics Courses."

3. Mechanism Elucidation: The Internal Mechanism of Generative AI Empowering Scenario-based Teaching

Based on the theoretical logic of "Technological Embodiment," Generative AI deeply intervenes in and empowers university Civics teaching primarily through three dimensions: reconstructing cognitive scenarios, infiltrating emotional scenarios, and creating practical scenarios, forming a complete operational mechanism.

3.1. Knowledge Graph and Dynamic Generation: Precise Reconstruction of Cognitive Scenarios

One of the core tasks of Civics Courses is to explain reasoning well, which requires solid academic support. However, faced with massive theoretical knowledge and complex logical systems, students often feel an excessive cognitive load. Generative AI reconstructs cognitive scenarios through the following mechanisms:

Intelligent Construction of Knowledge Graphs: Utilizing Large Language Models (LLMs) to conduct deep mining and correlation analysis on Marxist classics, the Party's innovative

theories, and the latest current affairs policies, automatically generating multi-dimensional knowledge graphs. In teaching, AI can present the logical evolution path between concepts in real-time according to teaching progress and students' cognitive blind spots (e.g., the historical generation logic of the concept of "Chinese Modernization"), transforming linear text into a three-dimensional, visual knowledge network, helping students build a systematic theoretical framework.

Personalized Generation of Teaching Content: Traditional unified textbooks have universality but struggle to account for the cognitive characteristics of students from different majors and levels. Generative AI can instantly generate differentiated teaching cases and explanatory discourses based on students' academic backgrounds (e.g., STEM, Humanities), interests, and past learning data. For example, for medical students, AI can automatically generate associated cases regarding the "Barefoot Doctor Spirit" and the "Healthy China Strategy"; for computer science students, it focuses on analyzing "Algorithmic Justice" and "Tech Ethics." This "one case per person" generation mechanism realizes precise irrigation in ideological and political education.

Socratic Heuristic Dialogue: Relying on the natural language understanding capabilities of Generative AI, an "Intelligent Teaching Assistant" system is built. In cognitive scenarios, AI is no longer a simple Q&A machine but can play the role of "Socrates," stimulating students' deep thinking through continuous questioning, rhetorical questioning, and guidance. For instance, when a student asks, "Why is it said that capital comes dripping from head to foot, from every pore, with blood and dirt?", AI can guide the student to consult the original text of Das Kapital, and analyze dialectically in combination with contemporary cases of capital expansion, thereby completing the self-construction of theory through human-machine dialogue.

3.2. Virtual Simulation and Empathy Resonance: Immersive Shaping of Emotional Scenarios

"Move with emotion, then enlighten with reason." Emotion is the catalyst for the internalization of values. Generative AI, through multimodal content generation technology, breaks through the limitations of language and text, greatly enhancing the infectivity of emotional scenarios.

"Digital Restoration" of Historical Contexts: Using text-to-video and text-to-image tools like Sora and Midjourney, teachers can restore scenes of major historical events at low cost and high efficiency. For example, generating realistic dynamic videos of "Flying over Luding Bridge" during the Long March, or restoring the grand scene of the Founding Ceremony, or even repairing old historical photos using AI technology to make blurred historical faces clear and vivid. This visual impact far exceeds traditional PowerPoint presentations, instantly hitting the emotional soft spots of students and triggering cross-space-time empathy.

"Cross-Space-Time Dialogue" with Virtual Characters: Based on Persona Simulation technology, AI can generate virtual digital humans with specific personality traits, language styles, and memory banks. In teaching, students can discuss career choices with a "Young Marx," exchange ideas on the spirit of dedication with "Lei Feng," and talk about youthful ideals with "Li Dazhao." This anthropomorphic interaction dissolves the psychological distance between great figures and students, making the transmission of faith warm and tangible.

Affective Computing and Real-time Feedback: Combined with facial expression recognition and affective computing technology, AI-assisted teaching systems can capture students' emotional changes in class (e.g., focus, confusion, excitement, boredom) in real-time. Based on this data, Generative AI can dynamically adjust teaching rhythm and content strategies. For example, when detecting fatigue in most students, AI can suggest the teacher insert a humorous case or a touching video clip to maintain the continuous resonance of the emotional field.

3.3. Simulation Drills and Value Clarification: Dynamic Creation of Practical Scenarios

Civics Courses must solve not only the problem of "knowing" but also the problem of "doing." However, factors such as limited social practice resources, organizational difficulty, and high safety risks have long restricted the development of practical teaching. Generative AI offers the possibility to create low-cost, high-fidelity virtual practice scenarios.

Simulation Decision-making in Social Ethical Dilemmas: AI can generate complex ethical dilemma situations based on social hotspots (e.g., the trolley problem in autonomous driving, equity issues in medical resource allocation), constructing a virtual social laboratory. Students play roles as policymakers, business managers, or ordinary citizens to perform decision-making simulations. The AI system deduces and generates corresponding social consequence feedback in real-time based on students' choices. This "trial and error" mechanism allows students to experience the realistic results under different value orientations in virtual practice, thereby clarifying values in dynamic gaming and improving the ability to analyze and solve problems using Marxist standpoints and methods.

Intelligent Analysis of Social Survey Data: In practice segments like social surveys, Generative AI acts as a powerful auxiliary tool. It can help students design scientific survey questionnaires, automatically transcribe and analyze emotions in massive interview recordings, and extract key variables and causal chains from complex social phenomena. This not only improves the efficiency of practical teaching but also cultivates students' digital literacy and scientific spirit.

Digital Creation of Red Culture: Encouraging students to use Generative AI tools for the re-creation of Red Culture, such as producing AI paintings, generating Red micro-movie scripts, and composing songs of the era. This "Generative Learning" transforms students from passive recipients into active cultural producers, achieving deep identification and internalization of mainstream ideology during the creation process.

4. Risk Scrutiny: Technological Overreach and the "Alienation" Crisis in Ideological and Political Education

Although Generative AI brings revolutionary opportunities for scenario-based teaching in Civics Courses, we must maintain the critical spirit of Marxism toward technology. Technology itself is not value-neutral; behind it lies the logic of capital and the bias of instrumental rationality. Without effective regulation, the deep embedding of Generative AI may lead to an alienation crisis of "Technological Overreach" and "Value Hollowing" in ideological and political education

[2].

4.1. Epistemological Crisis: Disinformation and "Machine Hallucination"

Civics Courses possess a high degree of political nature and scientific rigor, requiring accurate teaching content. However, Generative AI is essentially a probabilistic language model with inherent defects of "Machine Hallucination."

Implicit Infiltration of Historical Nihilism: When generating historical narratives, AI may fabricate non-existent historical details or even distort historical conclusions based on erroneous information on the internet or Western-centric corpora. For instance, when describing the War to Resist U.S. Aggression and Aid Korea, if the training data cited by AI is biased, it may generate content questioning the justice of the war. Such hidden, specious disinformation can easily mislead college students who lack historical discernment, leading to the proliferation of historical nihilism [3].

Dissolution of Truth Authority: Traditional Civics teaching relies on classic texts and authoritative interpretations by teachers. When students become accustomed to "asking AI" instead of "asking classics" or "asking teachers," the seemingly omniscient answers from AI may be regarded as the standard. However, AI generates only a platter of "correlative" knowledge, not the logical truth of "causality." Over time, this may lead to students losing reverence for the truthfulness of Marxism and the willingness to explore deeply, causing their thinking to become superficial and fragmented.

4.2. Axiological Crisis: Algorithmic Bias and the Illusion of "Value Neutrality"

Algorithms appear objective and neutral, but in reality, through code writing, data cleaning, and model training, they embed the values and ideological biases of developers.

Invisible Game of Ideology: Currently, mainstream Generative AI large models are mostly controlled by Western tech giants, and their training corpora are filled with values of Western liberalism and individualism. Introducing models without localized training directly into Civics teaching risks encountering "ideological infiltration." For example, when discussing concepts like "Democracy" and "Human Rights," AI might output definitions conforming to Western discourse systems while rejecting interpretations of Socialist Core Values, posing a potential threat to our mainstream ideological security [4].

Mechanical Reduction of Value Judgments: Ideological and political education is not just the transmission of knowledge but the shaping of the soul. AI lacks true human emotion and moral intuition; its generated "value judgments" are often the "greatest common divisor" based on statistical laws, appearing as a slick, mediocre, or even indifferent "rational neutrality." Such answers, lacking warmth and stance, cannot touch students' hearts, let alone replace the definitive value guidance provided by teachers at critical moments.

4.3. Ontological Crisis: Objectification of the Subject and "Exit of Teachers and Students"

Over-reliance on technology may lead to the absence of "human beings" in the educational process, triggering a crisis of subjectivity.

Marginalization of the Teacher's Role: With the comprehensive penetration of AI in lesson preparation, teaching, and Q&A, some teachers may become vassals of technology, leading to the phenomenon of "passive laziness." Teachers may no longer delve into theory but act as "porters" or "broadcasters" of AI content. This trend of "de-skilling" will severely weaken the professional dignity and educational ability of Civics teachers [5].

Alienation of Student Subjectivity: While immersive virtual scenarios are attractive, they may also create the illusion of a "Society of the Spectacle." Students may become addicted to sensory stimulation and technological interaction, forgetting the original intention of learning. More seriously, AI's "nanny-style" service may lead to mental laziness in students, causing them to lose the ability for independent thinking and critical reflection, eventually becoming "digital giant infants" fed by algorithms. The originally vivid "presence of life" and "dialogue of souls" between teachers and students are replaced by cold "human-machine interaction," and the essence of education—"one tree shaking another, one cloud pushing another"—faces the risk of being deconstructed by technology.

5. Value Return: The Practical Path of Generative AI Empowering Civics Courses

Facing the opportunities and challenges brought by Generative AI, we must neither give up eating for fear of choking nor worship blindly. We must adhere to the fundamental principle that "technology serves education," follow the dialectical thinking of "upholding the Way (Dao) and utilizing the Tool (Qi)," and explore a practical path from technological embodiment to value return, constructing a new model of Civics teaching featuring human-machine synergy, value leadership, and regulated governance.

5.1. Subject Reshaping: Constructing a New "Human-Machine Synergistic" Teacher-Student Relationship

The more technology develops, the more human subjectivity should be manifested. In the AI era, both Civics teachers and students need to reposition their roles and upgrade their capabilities comprehensively.

Transformation of the Teacher's Role: From "Knowledge Authority" to "Value Guide" and "Technology Driver."

Value Gatekeeper: Teachers must firmly hold the dominance of the classroom, strictly vetting AI-generated content politically and correcting value deviations. On issues involving major theoretical principles and political direction, teachers must dare to speak out, using profound theoretical foundations to clarify fallacies and ensure the dominant position of mainstream ideology.

Emotional Connector: AI can generate emotional materials but cannot produce genuine emotion. Teachers should pay more attention to emotional communication, personality inspiration, and spiritual dialogue with students, using their own light of faith to ignite students' fire of ideals, filling the emotional vacuum left by technology.

Technology Orchestrator: Teachers should actively improve digital literacy, master skills like Prompt Engineering, and be good at using AI tools to optimize instructional design rather than being enslaved by technology.

Advancement of Student Capabilities: From "Information Recipient" to "Critical Thinker" and "Human-Machine

Collaborator."

The focus of education should shift from pure knowledge memorization to cultivating students' "AIQ," i.e., the ability to master AI tools.

Emphasis should be placed on cultivating students' Critical Thinking, guiding them to view AI-generated information with scrutiny, learn to discern the logical traps and value biases behind algorithms, and establish subject consciousness in human-machine gaming.

5.2. Algorithmic Governance: Creating "Trustworthy and Controllable" Vertical Models for Civics Education

Tool security is the prerequisite for value return. Universities should rely on the national education digitization strategy to promote deep integration research and development of technology and education.

Building an Exclusive Corpus for Ideological and Political Education: The practice of directly applying general large models must be changed. Through cooperation between government, schools, and enterprises, a high-quality, purified exclusive corpus for ideological and political education should be built. Marxist classics, important Party documents, authoritative media reports, and excellent Civics teaching cases should serve as core training data to ensure the AI model's "genes" are pure.

Developing Vertical Large Models for Civics: Developing Generative AI models with independent intellectual property rights for the Civics domain. In the Pre-training stage and Reinforcement Learning from Human Feedback (RLHF) stage, Civics experts and ethics experts should be introduced to participate in rule formulation and result labeling, embedding Socialist Core Values into the underlying logic of the algorithm to realize "Algorithm for Good."

Establishing a Full-Process Risk Control Mechanism: At the application level, a supervision system of "pre-audit, in-process monitoring, and post-tracing" should be established. Sensitive word filtering and political security firewalls should be set up to monitor AI-generated teaching content in real-time. Once harmful information is found, it must be immediately fused and traced for correction to ensure the absolute security of the teaching position.

5.3. Model Innovation: Establishing a New Paradigm of "Virtual-Real Symbiosis" in Scenario-based Teaching

Value return must ultimately be implemented in the innovation of teaching models. We must break the "two layers of skin" separation between technology and teaching, realizing the deep coupling of technological logic and educational logic.

"AI + Theory": Creating an Immersive Theoretical Forum. Use AI to visualize abstract theories, but strictly adhere to "Content is King." Technological display should serve theoretical elucidation, avoiding "showing off skills" interfering with "reasoning." For example, after displaying a video generated about the "Achievements of Reform and Opening Up," the teacher should guide students to deeply understand the superiority of the socialist system with Chinese characteristics through data comparison and theoretical analysis, achieving the sublimation from perceptual experience to rational identification.

"AI + Practice": Constructing a Virtual-Real Combined

"Grand Civics Course." Persist in the complementarity of virtual practice and realistic practice. AI simulation can serve as a rehearsal and supplement for realistic practice but cannot completely replace offline social surveys and voluntary services. Students should be guided out of the virtual space to bring AI-assisted analysis results into the fields, factories, and communities. Through "muddy-legged" practice in the real social classroom, they test truth and temper their will, realizing the unity of "Civics on fingertips" and "Civics underfoot."

"AI + Evaluation": Establishing a Multi-dimensional Value-added Evaluation System. Discard the score-only evaluation orientation and use AI's big data analysis capabilities to create a full-process portrait of students' ideological trends, learning behaviors, and value changes. Pay attention to the quality of questions, viewpoint tendencies, and emotional attitudes of students in human-machine interaction, carry out accompanying and diagnostic evaluations, and provide a scientific basis for personalized educational guidance.

6. Conclusion

Technological philosopher Bernard Stiegler once said: "Technology is a pharmakon; it is both a remedy and a poison." As a disruptive technological force, Generative AI is profoundly reshaping the teaching form of university ideological and political courses. It makes Civics Courses more vivid, three-dimensional, and perceptible in an "embodied" way, but it also brings risks of value loss.

Facing this issue of the times, we must maintain strategic determination. We must enthusiastically embrace technological dividends to promote the digital transformation and scenario-based reform of Civics teaching; at the same time, we must always be vigilant against the alienation of technology and stick to the original intention and mission of "Fostering Character and Civic Virtue." By reshaping the subject relationship of human-machine synergy, building a safe and controllable technological foundation, and innovating the teaching paradigm of virtual-real symbiosis, we are fully capable of taming the wild horse of technology, making Generative AI the "wisdom spark" that lights up students' lamps of faith, and promoting university ideological and political courses to shine with more brilliant light of truth in the intelligent era. This is not only the inevitable path for the reform and innovation of Civics Courses but also the answer of the times to the fundamental question of "what kind of people to cultivate, how to cultivate people, and for whom to cultivate people."

Acknowledgment

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