

The Internal Mechanisms and Practical Paths for Leveraging Generative Artificial Intelligence to Empower High-Quality Development in University Ideological and Political Education

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Abstract: Generative Artificial Intelligence, as one of the most cutting-edge technologies of the present era, is gradually garnering extensive attention for its applications in the educational sector. Notably, in the realm of ideological and political education within higher education institutions, generative AI not only offers more personalized instructional content but also enhances students' learning experiences through intelligent interactive methods. Universities and colleges bear the weighty responsibility of cultivating high-quality talents imbued with correct values and moral character, a demand aptly fulfilled by the integration of generative AI. By means of educational technological innovation, symbiosis and human-machine collaboration, intelligent connectivity and interaction creation, as well as data-driven ubiquitous intelligent education, it constructs a novel pedagogical paradigm aimed at comprehensively elevating the quality and efficacy of ideological and political education in higher education. This article delves into the internal mechanisms through which generative AI empowers ideological and political education in universities and colleges, proposing practical pathways to implementation, with the hope of offering fresh perspectives and methodologies for the high-quality development of ideological and political education in higher education institutions.

1. Introduction

With the rapid societal advancement and the ever-evolving landscape of technology, the field of education is undergoing unprecedented transformation. Generative artificial intelligence, with its formidable innovative capabilities and extensive application potential, has emerged as a pivotal force driving the high-quality development of education. In the realm of ideological and political education within higher institutions, the application of generative AI not only aids educators in more efficiently organizing and implementing teaching activities but also caters to students' individualized needs through intelligent means, thereby enhancing the quality and effectiveness of education. As a crucial component of higher education, ideological and political education is not merely concerned with the impartation of knowledge but also with the shaping of values and the

elevation of moral character. The introduction of generative AI offers new possibilities for achieving these objectives, while simultaneously presenting numerous opportunities and challenges. This article aims to explore how generative AI, through the innovation of intrinsic mechanisms and the optimization of practical pathways, can contribute to the high-quality development of ideological and political education in higher institutions.

2. Basic Theory of Generative Artificial Intelligence in Ideological and Political Education in Colleges and Universities

2.1. Definition and Characteristics of Generative Artificial Intelligence

Generative artificial intelligence is a technology that can autonomously produce new content. Its core lies in simulating human thought processes, using techniques such as deep learning and natural language processing to generate various forms of content, including text, images, audio, and video. This technology not only possesses powerful data processing and analysis capabilities but can also flexibly create content based on specific needs, significantly enriching teaching resources and methods. In the context of ideological and political education in higher education institutions, the characteristics of generative artificial intelligence are particularly prominent. It can generate personalized teaching content tailored to the learning backgrounds and interests of different students, making education more precise and effective [1]. Additionally, generative artificial intelligence can simulate real-world scenarios for interactive teaching, helping students better understand and internalize the content of ideological and political education in a virtual environment. The application of this technology not only enhances the interactivity and fun of teaching but also encourages students to take a more active role in the learning process, thereby better cultivating their overall qualities and abilities. The emergence of generative artificial intelligence has brought unprecedented opportunities to ideological and political education in higher education institutions, and it points to new directions for future educational development.

2.2. Characteristics and needs of ideological and political education in colleges and universities

Ideological and political education in higher education institutions is an extremely important discipline, not only concerning the imparting of knowledge but also focusing on the shaping of values and the enhancement of moral qualities. In this complex and ever-changing social environment, ideological and political education faces new challenges and demands. Traditional teaching methods often struggle to meet the personalized needs of each student, and the introduction of generative artificial intelligence (AI) precisely addresses this shortcoming. Ideological and political education requires a high degree of interactivity and engagement. Generative AI can provide rich interactive scenarios, helping students better understand and internalize educational content in environments that combine the real and virtual. Moreover, ideological and political education must keep pace with the times. Generative AI can quickly generate the latest teaching materials, reflecting new developments and issues in social evolution, making the educational content more vibrant and relevant to real-life situations. In cultivating students' comprehensive qualities, generative AI also plays a significant role. It can provide a variety of learning resources and methods, stimulating students' initiative and creativity, and helping them achieve holistic development [2]. In summary, generative AI has injected new vitality into ideological and political education in higher education institutions, making it more flexible, precise, and efficient. It provides strong support for nurturing a new generation of high-quality talents with correct values and moral integrity.

3. Inherent Mechanism of Generative Artificial Intelligence Enabling Ideological and Political Education in Colleges and Universities

3.1. Educational Technology Innovation

The application of generative artificial intelligence in ideological and political education in colleges and universities marks a major leap in educational technology, which is not only a simple information generation tool, but also a deep innovation in educational concepts and methods. Traditional ideological and political education often relies on teachers to impart knowledge in one direction, making it difficult to fully mobilize students' enthusiasm and participation, and the intervention of generative AI makes the teaching process more interactive and multidimensional. For example, AI can generate virtual scenarios that allow students to personally experience historical events and important decisions, and this kind of immersive learning not only enhances students' cognitive experience, but also cultivates their sense of historical mission and responsibility. What's more, generative AI can generate personalized teaching content and feedback based on students' learning trajectories and mental states. Each student's learning background and cognitive differences are fully taken into account, and the teaching content is thus more precise and effective. This kind of customized teaching not only enhances students' interest in learning, but also helps them make progress in their mental understanding. At the same time, the AI platform's ability to analyze data provides teachers with valuable references, making teaching design more scientific and rational. The application of generative AI also promotes the sharing and optimization of teaching resources, and colleges and universities can use AI to generate high-quality teaching materials and case studies to achieve the efficient use and wide dissemination of educational resources. Whether inside or outside the classroom, generative AI can provide continuous support and innovative power to promote ideological and political education to a higher quality [3].

3.2. Symbiosis and Human-Computer Collaboration

The application of generative artificial intelligence in ideological and political education in colleges and universities is essentially a deep collaboration and symbiosis between humans and machines, which not only changes the traditional teaching mode, but also opens up new horizons in teacher-student interactions. AI is able to generate personalized teaching content, dynamically adjusted according to the interest and cognitive level of students, making teaching more accurate and effective. At the same time, the role of the teacher has changed from a mere transmitter to a guide and coordinator, providing more targeted guidance to students through the rich resources and real-time feedback provided by AI. Another important aspect of human-computer collaboration is data-driven educational decision-making. Generative AI can collect and analyze large amounts of student learning data to provide teachers with a scientific basis for decision-making. For example, AI can analyze students' understanding bias and emotional tendencies on specific ideological and political topics to help teachers adjust their teaching strategies and enhance the effectiveness of education. This data-driven approach makes educational decision-making more reasonable and efficient, and truly realizes tailored teaching. In addition, generative AI plays an important role in promoting students' independent learning. The AI platform can provide rich self-learning resources and interactive learning tools to stimulate students' enthusiasm and initiative for learning. Students are no longer just passive recipients of knowledge, but actively participate in the learning process, and through interaction with the AI, they continuously deepen their understanding and identification with the content of ideological and political education. This symbiotic relationship not only improves the learning effectiveness of the students, but also cultivates their critical thinking and innovation ability [4].

3.3. Intelligent Connection and Interaction Creation

The application of generative artificial intelligence in ideological and political education in colleges and universities opens a new chapter in the creation of intelligent connection and interaction, a technology that not only generates high-quality teaching content, but also builds a highly interactive learning environment. The realization of intelligent connection makes the sharing and collaboration of educational resources more convenient. This borderless learning environment not only promotes interaction between teachers and students, but also enhances cooperation and communication among students, forming a multi-dimensional learning community. On a deeper level, generative AI can help students develop critical thinking and innovation. During the interaction, AI can ask challenging questions that lead students to deeper thinking and exploration. This dynamic interaction allows students to gradually develop independent thinking and problem-solving skills in the process of constantly solving problems. At the same time, the multi-angle and multi-level perspectives provided by AI can also help students understand complex social phenomena and theories of thought more comprehensively, and cultivate their comprehensive quality and innovation ability[5].

3.4. Data-driven and Ubiquitous Intelligent Education

The data-driven education model means that each student's learning behavior, mental state and cognitive level are systematically recorded and analyzed, and this data not only provides teachers with valuable feedback, but also provides a scientific basis for teaching design and improvement. For example, the AI platform is able to monitor students' performance in a specific ideology and politics course in real time, identify learning difficulties and blind spots in a timely manner, and provide guidance to teachers in adjusting their teaching strategies to ensure that each student progresses on the path that best suits him or her. Ubiquitous intelligent education further expands the boundaries of learning. Generative AI can seamlessly embed the content of ideological and political education into students' daily lives and various activities, realizing learning anytime, anywhere. Whether it's online discussions, virtual simulations, or AI-based personalized recommendations, students are able to continuously receive new ideas and concepts in a diverse learning environment. This ubiquitous learning environment makes ideological and political education no longer limited to the classroom, but extends to every corner of the campus and even to all levels of society, truly realizing the ubiquity of education. The combination of data-driven and ubiquitous intelligent education not only improves the efficiency and effectiveness of education, but also has a profound impact on students at the emotional level. Generative AI is able to adjust the presentation of teaching content according to the emotional feedback of students, making it more in line with their psychological needs and emotional resonance, and this personalized teaching method makes students feel more warmth and support in ideological and political education, and stimulates their intrinsic learning motivation and enthusiasm. In this process, generative AI is not only a technical tool, but also a catalyst for educational philosophy. It promotes the transformation of ideological and political education in colleges and universities from traditional indoctrination to interactive and experiential education, making education closer to the actual needs and life experiences of students [6].

4. Practical Path of Generative Artificial Intelligence Enabling High-Quality Development of Ideological and Political Education in Colleges and Universities

4.1. Building an intelligent teaching platform

Building intelligent teaching platforms is a key approach for generative artificial intelligence (AI) to support the high-quality development of ideological and political education in higher education institutions. These platforms can deeply integrate generative AI technology with the content of ideological and political education, breaking through the limitations of traditional teaching methods. For example, an intelligent teaching platform based on generative AI can generate virtual teachers in real-time to interact with students through dialogue and Q&A sessions, helping students better understand the core concepts and practical significance of ideological and political education. Moreover, the platform can collect various data from students' learning processes, such as answer records, discussion activity levels, and study times, which helps teachers precisely grasp each student's actual learning situation. The platform can also intelligently recommend corresponding learning resources and activities based on students' learning progress and interests, making teaching more personalized and targeted [7]. This intelligent recommendation mechanism not only stimulates students' learning interests but also effectively improves learning outcomes. More importantly, the intelligent teaching platform can overcome time and space limitations, allowing students to access high-quality teaching content and interactive experiences anytime and anywhere, whether they are on campus or elsewhere. This way, ideological and political education truly achieves ubiquity and accessibility, making educational goals closer to students' actual needs and living environments. Building intelligent teaching platforms is not only a technological innovation but also a revolutionary change in educational philosophy. It infuses new vitality and momentum into ideological and political education, enabling students to receive education in a relaxed and enjoyable atmosphere and improve their overall quality and moral cultivation.

4.2. Optimizing classroom teaching mode

Generative AI can achieve the immediacy and diversity of classroom interaction, transforming traditional monologues into vibrant platforms of exchange. For instance, educators can leverage generative AI to generate real-time discussion topics and case studies, adjusting the direction and depth of discussions on the fly based on student feedback. Such dynamic engagement not only kindles students' passion for critical thinking but also aids them in understanding complex social issues from multiple perspectives. Generative AI can also offer personalized learning pathways, tailoring learning materials and exercises to each student's progress and capabilities. In this way, students can better keep pace with the classroom rhythm while overcoming their individual weaknesses. Furthermore, generative AI can facilitate experiential learning through virtual role-playing and scenario simulation, allowing students to experience the significance and value of ideological and political education in practice. For example, a simulation of a debate on social equity could enable students to engage in thorough discussion and exchange in a virtual setting. This form of experiential learning not only enhances the appeal of the classroom but also allows students to more deeply understand and internalize the knowledge they acquire. Ultimately, the advantages of generative AI transform the traditional one-way transmission model of classroom teaching into a two-way interaction, making ideological and political education more vivid, effective, and truly resonant with students, thereby providing strong support for their all-around development [8].

4.3. Enhancing teachers' information literacy

In the wave of the information age, teachers' information literacy is not only related to whether they can effectively utilize generative artificial intelligence technology but also directly affects the quality and effectiveness of ideological and political education. Therefore, universities should actively organize information technology training for teachers, especially training on the use and teaching applications of generative AI. For example, the training can include how to use generative AI to generate teaching content, design interactive sessions, and how to process and analyze student learning data. This way, teachers can not only master advanced technical tools but also better understand students' needs and confusion. More importantly, improving teachers' information literacy can also drive them to innovate teaching methods, gradually shifting from traditional rote teaching to heuristic and inquiry-based teaching methods. The application of generative AI technology enables teachers to more accurately grasp students' psychological and ideological dynamics, thereby carrying out more targeted and effective emotional exchanges and ideological guidance in the classroom. As a result, ideological and political education not only becomes more vivid and interesting but also subliminally cultivates students' ideological and moral character and values.

4.4. Strengthening students' personalized counseling

In the current age of information explosion, each student's thoughts and perplexities are unique, making it challenging for traditional group tutoring methods to satisfy individual needs. Generative artificial intelligence, however, can tailor tutoring programs based on students' learning records, psychological traits, and personal differences. For instance, for students with more conservative mindsets, generative AI can present open-ended topics and cases to encourage comprehensive thinking and discussion. Conversely, for students with active minds but lacking direction, AI can provide targeted materials and suggestions to help clarify their goals and paths. Furthermore, generative AI facilitates immediate interactive communication. In post-class tutoring sessions, for example, students can pose their questions through AI platforms and receive prompt feedback and solutions. This immediacy and interactivity not only enhance student engagement but also provide support during the moments when they need it most, thus genuinely achieving the goal of differentiated political and ideological education. More importantly, the application of generative AI can alleviate teachers' burdens, allowing them to focus on in-depth guidance and emotional support. The care and support students receive in personalized tutoring can ignite their passion for learning and foster a positive outlook on life and values [9].

4.5. Improve evaluation and feedback mechanism

Refining the evaluation and feedback mechanisms is a pivotal aspect of leveraging generative artificial intelligence to foster high-quality development in ideological and political education at universities. In the process of ideological and political education, students' psychological changes and spiritual insights often remain invisible, making it difficult for traditional evaluation methods to fully and accurately reflect the true learning status and progress of students. Generative artificial intelligence can provide multi-dimensional, personalized, and dynamic evaluation and feedback mechanisms. For instance, AI can generate comprehensive evaluation reports based on various data points, such as students' interaction records on learning platforms, the quality of their assignments, and their contributions to discussions. This allows teachers to gain a deeper understanding of students' learning states and mental dynamics, and through these data, identify potential issues and confusions, thereby offering timely, targeted guidance and intervention. Such immediate and

precise feedback mechanisms not only assist students in promptly identifying and addressing problems but also enhance their recognition and engagement in ideological and political education. More importantly, generative artificial intelligence can continuously optimize teaching content and methods based on students' feedback and evaluations. For example, if most students perform poorly in a particular topic, the AI system can automatically adjust the teaching resources, introducing more relevant cases and discussion questions, making the teaching content more closely aligned with students' actual needs and interests. This not only makes ideological and political education more scientific and efficient but also genuinely touches the hearts of students, stimulating their enthusiasm and initiative in learning [10]. In higher education, such evaluation and feedback mechanisms not only enhance the quality of teaching but also cultivate students' self-directed learning and self-reflection skills, enabling them to face future challenges with greater confidence and composure. The application of generative artificial intelligence injects new vitality and impetus into the high-quality development of ideological and political education in universities.

5. Conclusion

The application of generative artificial intelligence in higher education's ideological and political education undoubtedly infuses this domain with renewed vitality for high-quality development. Through educational technology innovation, symbiosis and human-machine collaboration, intelligent connectivity and interactive creation, as well as data-driven ubiquitous intelligent education, generative AI not only enhances the efficiency and quality of teaching but also better meets students' individual needs, increasing their engagement and sense of fulfillment. However, this transformation also imposes higher demands on the information literacy of university teachers, requiring them to continuously learn and adapt to new technologies to fully leverage the advantages of generative AI. In the future, generative AI will continue to play a significant role in the ideological and political education of higher education, providing robust technological support for cultivating a greater number of high-caliber talents with correct values and moral integrity.

References

- [1] Dan L .*Research on Curriculum Design and Teaching Strategies of Ideological and Political Education in Vocational Colleges*[J].*Journal of Higher Education Teaching*,2024,1(6):12.
- [2] Song C ,Xu X ,Wu J , et al.*The Integration of Ideological and Political Education into College Career Planning and Employment Guidance Courses: Design and Practice—A Case Study of the “Enjoyable Career” to “Professional Ambition” : Career Interests Exploring Course*[J].*Global Research in Higher Education*,2024,7(3):11-14.
- [3] Messer U .*How do people react to political bias in generative artificial intelligence (AI)?* [J].*Computers in Human Behavior: Artificial Humans*, 2025, 3100108.
- [4] Singh R, Kim Y J, Glassy F E, et al. *Introduction to Generative Artificial Intelligence: Contextualizing the Future*.[J]. *Archives of pathology & laboratory medicine*, 2024:11-14.
- [5] Song C ,Xu X ,Wu J , et al.*The Integration of Ideological and Political Education into College Career Planning and Employment Guidance Courses: Design and Practice—A Case Study of the “Enjoyable Career” to “Professional Ambition” : Career Interests Exploring Course*[J].*Global Research in Higher Education*,2024,7(3):22.
- [6] Tiejuan W .*The Way to Infiltrate Ideological and Political Education in College English Teaching*[J].*Education Reform and Development*,2024,6(11):170-175.
- [7] Xianpan X .*Research on the Construction Path of the All-Media Matrix for Online Ideological and Political Education in Universities*[J].*International Education Forum*,2024,2(10):77-82.
- [8] Hou Q .*The Role of the Communist Youth League in the Ideological and Political Education in Colleges and Universities under the Background of the New Era*[J].*Journal of Higher Education Research*,2024,5(5):3-5.
- [9] LAI J ,JIA W,CHEN J, et al.*Practice and Exploration of Intangible Cultural Heritage in South Hubei in Ideological and Political Education of Teachers’ College*[J].*Asian Agricultural Research*,2024,16(11):54-57.
- [10] Lulu H .*An Exploration of Innovation of Social Practice Model of Ideological and Political Courses in Colleges and Universities*[J].*Scientific and Social Research*,2024,6(10):176-182.