Article

Artificial Intelligence Empowering the Innovation of Ideological and Political Course Teaching Models in Universities

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Abstract: With the rapid development of information technology, AI has permeated education, showing great potential in innovating teaching models. Ideological and Political Courses in universities face challenges like a disconnect between content and student needs, low interaction, and poor engagement, requiring urgent reforms. This study explores AI-enabled approaches such as personalized teaching, intelligent assessment, and VR/AR technologies. It demonstrates that AI can enhance interaction, improve learning experiences, and support teaching quality. Despite challenges like ethics and data privacy, AI's continued evolution will lead to broader applications, deeper integration, and new momentum for teaching model improvements in these courses.

Keywords: artificial intelligence; ideological and political courses in universities; teaching model innovation

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1. Introduction

Ideological and Political Courses in universities play a crucial role in cultivating students' political literacy, social responsibility, and core values. However, traditional "transmissive" teaching models, dominated by teacher-led lectures, no longer meet the needs of contemporary students. Issues like low participation, lack of interest, and limited interaction have led to unsatisfactory outcomes. Moreover, teaching content often fails to connect with students' real-life experiences, and teaching methods lag behind modern technological developments, constraining the course's educational functions and making teaching model reform essential. The advancement of AI technology offers promising solutions for addressing these challenges. AI's capabilities in data processing and analysis can deliver precise teaching tailored to individual needs, thereby enhancing learning interest and engagement. AI can also provide comprehensive teaching feedback and support through learning analytics and intelligent assessment, enabling more precise and personalized teaching management. Therefore, integrating AI into Ideological and Political Courses can offer new perspectives for transforming traditional teaching models. This study explores AI's application and innovative paths in these courses, focusing on personalized teaching design, intelligent assessment, learning analytics, and VR/AR technologies. It proposes feasible solutions for AI-enabled innovation and summarizes the effectiveness of AI through practical cases. The study also discusses the future prospects of AI in this field, aiming to provide valuable insights for improving teaching models and promoting AI's further development in education [1].

2. Current Teaching Model of Ideological and Political Courses in Universities and Its Challenges

2.1. Analysis of the Current Teaching Model of Ideological and Political Courses

The current teaching model of Ideological and Political Courses in universities relies heavily on traditional classroom teaching, with limited use of case studies and discussions.

Most courses still follow a "teacher-lecturing, student-listening" approach, where teachers dominate the class, focusing on policy interpretation, theoretical explanation, and case analysis. This results in a lack of vibrancy and interactivity, with students having few opportunities to participate, leading to passive learning experiences. The outdated content and teaching methods also result in low acceptance and interest levels among students, contributing to poor teaching effectiveness and uninspiring classroom dynamics. While some universities have tried to incorporate new methods like scenario-based teaching and group discussions, these remain superficial and fail to address the core issues of low engagement and poor interaction [2]. Teachers often stick to lectures, overlooking students' individual needs and independent learning capabilities. Furthermore, unequal distribution of teaching resources leads to inconsistent quality, with some courses focusing more on form than substance. Current course content mainly emphasizes theoretical knowledge, lacking connection to real-life situations and social realities, making it challenging for students to relate what they learn to practical issues. Additionally, the course design insufficiently addresses political literacy, emotional education, and value formation, essential for motivating students' internal growth. In summary, the existing teaching model faces challenges in philosophy, content design, and application, which limit its educational effectiveness. Reforming the teaching model to better meet students' needs, enhance interactivity, and improve effectiveness is an urgent priority for the development of Ideological and Political Education in universities [3].

2.2. Major Challenges of the Current Teaching Model

The current teaching model of Ideological and Political Courses in universities faces challenges in teaching methods, student engagement, and alignment of content with actual needs. These issues hinder course quality and the internalization of values by students. First, the single teaching method and poor interaction are major challenges. Traditional teaching primarily uses a "transmissive" approach, where teachers dominate with theoretical explanations and policy interpretation, lacking interaction and emotional communication. This leads to low student interest and engagement. Attempts to introduce interactive methods like group discussions and role-playing are limited by time, class size, and resource constraints, resulting in stagnant classroom dynamics. Second, low student participation and insufficient motivation are critical issues. Traditional teacher-led models provide limited space for active student participation, focusing on memorization over deep thinking and independent exploration. This model neglects individual differences, making it hard to stimulate internal motivation, causing students to treat these courses as "task-based" and learn solely for exams, rather than for personal growth. Third, there is a disconnect between teaching content and students' actual needs. Current course content is rigid, emphasizing theoretical knowledge while neglecting practical issues and students' concerns [4]. This disconnect reduces students' interest and makes it difficult to apply course content to real life. Some teachers rely too heavily on prepared scripts, lacking innovation and flexibility, further decreasing course appeal. Lastly, uneven resource distribution and varying teacher capabilities pose additional challenges. Many universities lack sufficient resources like multimedia equipment and teaching platforms, affecting overall teaching effectiveness. Teachers' proficiency with modern educational technology also varies, leading to limited teaching methods and poor classroom outcomes. In summary, these challenges hinder the quality and effectiveness of Ideological and Political Courses. Introducing AI technology could empower reforms, improving teaching methods, student engagement, and overall outcomes [5].

3. AI-Driven Innovative Approaches to Teaching Models in Ideological and Political Courses

3.1. Personalized Teaching Design Based on AI

AI technology supports the reform of teaching models in Ideological and Political Courses, particularly in personalized teaching design. Traditional teaching uses a standardized schedule and content, adopting a "one-size-fits-all" approach that fails to address students' diverse needs. In contrast, AI leverages data processing and analysis to create customized learning paths, achieving "teaching according to students' needs. "AI can collect and analyze students' learning data through big data and learning analytics, constructing individualized learning profiles. Teachers can then understand students' progress in real-time and adjust strategies accordingly. For instance, AI systems can identify weak points, recommend targeted resources, and provide supplementary materials, helping students grasp difficult concepts. This approach addresses unequal learning efficiency and improves overall outcomes.AI also enables intelligent interaction through natural language processing (NLP) and deep learning technologies. In classroom discussions, AI can act as a virtual assistant, providing precise answers and facilitating dialogue. This system stimulates critical thinking and encourages students to ask questions, increasing engagement and motivation. Furthermore, AI can push customized content based on students' interests and needs. For example, in studying socialism with Chinese characteristics, AI can recommend the latest research or trending topics. The system can also adjust course difficulty and depth based on students' performance, ensuring gradual mastery of key knowledge points. In summary, AI-based personalized teaching overcomes the limitations of traditional teaching, meets students' diverse needs, and optimizes the teaching process, offering a new solution for the innovative development of teaching models in Ideological and Political Courses [6].

3.2. Intelligent Assessment and Learning Analytics

In traditional teaching models of Ideological and Political Courses, student evaluation often relies on final exams or periodic tests, focusing primarily on students' memory and understanding of theoretical knowledge, while neglecting a comprehensive assessment of students' political literacy, values, and overall abilities. The introduction of intelligent assessment and learning analytics offers a new approach to teaching evaluation. By leveraging AI technology's advantages in data mining, machine learning, and big data analysis, it is possible to achieve a comprehensive and dynamic assessment of students' learning process, behaviors, and outcomes, thus improving the scientific and accurate nature of evaluations and helping teachers gain a better understanding of students' learning conditions and ideological dynamics. First, AI-based intelligent assessment systems can utilize learning analytics to capture and record students' behavioral data in real-time, such as study duration, frequency of participation in discussions, completion of assignments, and test results. These data reflect students' depth of understanding of course content and their learning attitudes, providing teachers with more precise evaluation criteria. For instance, when a student frequently makes mistakes on a particular knowledge point in tests, the system can identify this knowledge point as a weak area for the student and recommend relevant supplementary learning materials to help them strengthen their understanding in a timely manner [7]. Additionally, intelligent assessment systems can analyze students' answering behaviors and test data to identify their learning weaknesses and generate personalized learning feedback reports, providing teachers with a more comprehensive evaluation basis. Second, AI technology can analyze students' learning behavior patterns through big data analysis and predict their future learning performance. For example, the system can analyze students' performance in classroom discussions, assignments, and online tests to assess their interest in and comprehension of course content and predict their future learning trajectory. This predictive analysis can help teachers identify

potential learning issues in advance and take timely intervention measures, such as adjusting teaching pace or providing individual tutoring, to prevent students from falling behind, thereby improving the overall teaching effectiveness. Furthermore, AI can suggest personalized learning plans and goals for students based on learning analysis results, helping them achieve self-management and self-improvement in their learning process. In practical applications, AI technology can integrate learning analysis with the cultivation of students' political literacy by utilizing emotional computing and sentiment analysis to evaluate students' emotional tendencies and value recognition towards course content. For example, the system can analyze students' comments in classroom discussions or online forums to identify their viewpoints and attitudes towards specific political theories or social phenomena and conduct intelligent assessments based on their emotional expressions. This assessment method enables teachers to understand students' ideological dynamics in a timely manner and provide guidance or intervention when necessary, thereby effectively enhancing the educational effectiveness of Ideological and Political Courses. Additionally, intelligent assessment systems can achieve real-time monitoring and feedback of classroom teaching effectiveness. By integrating classroom teaching videos, students' facial expressions, classroom interaction data, and other information, the system can assess students' attention, emotional states, and participation levels during the class, thus providing a comprehensive evaluation of teachers' teaching effectiveness. For instance, if the system detects that students are showing signs of inattention or emotional decline during a certain period, it can remind the teacher to adjust the content or teaching method to improve classroom teaching effectiveness. This real-time monitoring and feedback mechanism can help teachers continuously optimize their teaching strategies and enhance overall classroom quality. In conclusion, intelligent assessment and learning analytics can achieve precise assessment and dynamic management of students' learning processes through multi-dimensional data collection and analysis, providing comprehensive and scientific teaching feedback for teachers and personalized learning support for students. This evaluation method can not only significantly enhance the teaching quality of Ideological and Political Courses in universities but also promote the overall development of students' political literacy, providing important technical support for the reform and innovation of teaching models in these courses.

4. Practical Application of AI-Enabled Innovation in Ideological and Political Course Teaching Models

With the gradual penetration of AI technology in the field of education, many universities have begun to apply AI to the reform of teaching models for Ideological and Political Courses, achieving remarkable results. The introduction of AI not only enhances the teaching quality and student engagement but also promotes the innovation of course content and diversification of teaching methods. In practice, AI is primarily applied in various aspects, such as intelligent Q&A systems, virtual classrooms, and scenario-based teaching platforms, providing multiple viable paths for the innovation of teaching models in Ideological and Political Courses. First, the application of intelligent Q&A systems in Ideological and Political Courses has significantly improved classroom interactivity and student engagement. In traditional classrooms, interaction between teachers and students is often limited by class time and teaching content, giving students few opportunities to ask questions, and teachers find it difficult to address each student's learning needs. However, with the introduction of intelligent Q&A systems based on Natural Language Processing (NLP) technology, students can raise questions anytime and anywhere through smart devices. The system can automatically generate precise answers and provide real-time feedback based on the course content and students' question contexts. This form of intelligent Q&A not only increases the frequency of students' inquiries but also encourages them to participate actively in classroom discussions. Meanwhile, the intelligent Q&A system helps teachers promptly understand students' comprehension levels of the

course content and provide targeted explanations for common difficulties, thereby optimizing teaching strategies and improving teaching effectiveness. For instance, after a certain university introduced an intelligent assistant system in its Ideological and Political Courses, the number of student inquiries increased significantly, classroom discussion became more active, and student satisfaction with the course improved notably. Second, the introduction of virtual classrooms and scenario-based teaching platforms provides richer practical scenarios for the innovation of teaching models in Ideological and Political Courses. Combining AI with Virtual Reality (VR) technology, teachers can create immersive virtual learning environments that integrate abstract theoretical knowledge with real-world scenarios, enhancing students' sensory experiences and emotional resonance. For example, when explaining patriotic education or revolutionary history, teachers can use VR technology to "bring" students into historical settings, allowing them to experience historical events' occurrence and development through immersive experiences. This teaching approach effectively breaks the time and space constraints of traditional classrooms, enabling students to understand the teaching content more intuitively and deeply, thus enhancing the teaching effectiveness of Ideological and Political Courses. Additionally, scenario-based teaching platforms can enhance students' engagement and participation through role-playing and scenario simulation, prompting them to explore real-world issues, make value judgments, and analyze positions in virtual environments, thereby deepening their understanding of theoretical knowledge and their recognition of Ideological and Political Courses. Furthermore, AI technology is also applied in the intelligent management and resource recommendation of teaching platforms. By introducing intelligent recommendation systems, teachers can push personalized learning resources and reference materials to students based on their learning behaviors and interests, thereby achieving a “one-to-one” teaching model. For instance, an intelligent teaching platform developed by a university can automatically generate personalized learning plans based on students' learning trajectories and knowledge acquisition levels and recommend relevant current affairs topics, social cases, and policy interpretations that align with their academic backgrounds and learning interests. This system can also record students' learning behavior data, predict their future learning performance based on data analysis results, and provide targeted teaching suggestions to teachers. This intelligent management and resource recommendation approach not only increases the utilization efficiency of learning resources but also provides new channels for teacher-student communication and interaction, facilitating a close integration of teaching content with students' actual needs. At the same time, the introduction of AI technology also enhances teachers' teaching capabilities and optimizes teaching efficiency. With AI-driven learning analytics and assessment systems, teachers can grasp students' learning dynamics and ideological trends in a timely manner, comprehensively understanding their depth of comprehension and learning outcomes, and adjust teaching strategies and progress accordingly. Moreover, intelligent assessment systems can automatically grade assignments, generate learning reports, and provide students with personalized learning feedback and improvement suggestions, thereby reducing teachers' workload and improving teaching efficiency. For example, after a university introduced an intelligent assessment system, teachers could grade assignments and evaluate students' learning outcomes more quickly, allowing them to devote more time to classroom interaction and optimizing teaching content. In conclusion, AI-enabled innovation in teaching models for Ideological and Political Courses has demonstrated broad application prospects in practice. By introducing various AI technologies, such as intelligent Q&A systems, virtual classrooms, and scenario-based teaching platforms, classroom interactivity and student engagement can be significantly enhanced, providing students with richer learning resources and personalized learning support, and improving the overall teaching quality of Ideological and Political Courses. Meanwhile, AI applications also provide teachers with more accurate teaching decision-making support and effective management tools, helping improve teachers' teaching abilities and efficiency. However, in practical applications, it is necessary to address potential ethical and

privacy concerns that may arise from the application of AI technology, ensuring the rationality and standardization of its use. Through the deep integration of technology and teaching, AI will undoubtedly play an increasingly important role in the future reform of teaching models for Ideological and Political Courses in universities, driving teaching models toward a more intelligent, personalized, and diversified direction [8].

5. Prospects and Reflections on AI-Enabled Innovation in Teaching Models for Ideological and Political Courses in Universities

The rapid development of AI technology has brought unprecedented opportunities and challenges to the innovation of teaching models for Ideological and Political Courses in universities. Looking ahead, AI will have a profound impact on various aspects of these courses, including teaching models, teaching content, classroom management, and student development, driving the teaching model towards greater intelligence, personalization, and diversity. However, in the process of leveraging AI technology to enable teaching reform, effectively integrating AI technology with the goals of Ideological and Political Course teaching and achieving deep integration of technology and education are critical issues that need careful consideration. At the same time, potential ethical concerns and privacy protection issues arising from the application of AI technology also require comprehensive attention and effective responses in future teaching reforms. In the future, AI will further drive the teaching model of Ideological and Political Courses towards intelligent development. Through data mining, machine learning, and deep learning technologies, precise tracking and dynamic analysis of students' learning behaviors can be achieved, helping teachers gain a comprehensive understanding of students' learning conditions and ideological trends, and providing personalized learning guidance and support. This data-driven approach to teaching management can enhance the scientific and precise nature of teaching, thereby significantly improving the effectiveness of Ideological and Political Courses. Moreover, with the deep integration of Virtual Reality (VR), Augmented Reality (AR), and AI technologies, future teaching of Ideological and Political Courses will be able to conduct more vivid scenario simulations and emotional experience-based teaching in virtual environments. This immersive teaching method can break the time and space constraints of traditional classrooms, bringing students into realistic historical or social scenarios, helping them better understand and experience the course content, thereby enhancing the appeal and impact of the course. Furthermore, AI will promote greater diversification in the teaching content of Ideological and Political Courses. Through intelligent recommendation systems and intelligent search engines, students can more conveniently access learning resources and current affairs information related to the courses, achieving a close integration between learning content and real-world topics. This dynamic updating of teaching content and intelligent recommendation mechanism can help students keep up with societal developments and enhance the relevance and timeliness of the course. At the same time, AI can tailor learning plans based on students' learning performance and interests, pushing course content that matches their academic backgrounds and personal needs, thereby achieving "personalized teaching for each student." This personalization and diversification of teaching content will greatly increase students' learning interest and engagement, promoting deeper understanding and recognition of Ideological and Political Course content. However, the process of AI-enabled innovation in teaching models for Ideological and Political Courses also brings challenges and calls for reflection. First, the widespread application of AI technology in teaching may lead to an overreliance on technology, neglecting the irreplaceable guiding role of teachers in the educational process. As a crucial platform for ideological and political education, teachers' charisma, emotional communication, and value guidance play key roles in the classroom. Therefore, in the process of promoting the application of AI technology, it is necessary to maintain the teacher's dominant position in the classroom, ensuring that technology serves the teaching process rather than taking over it. Second, the application

of AI technology also raises concerns about privacy protection and data security. During intelligent assessments and learning analytics, students' learning behavior data and ideological trend data will be extensively collected and analyzed. The use and management of these data must strictly adhere to relevant laws and regulations to prevent data misuse or leakage, thereby protecting students' privacy rights and data security. Additionally, the application of AI technology in Ideological and Political Courses may pose ethical challenges. AI's capabilities in learning behavior analysis, emotional computing, and ideological inclination assessment could potentially impact students' autonomy and ideological independence, even leading to excessive monitoring and passive adaptation in their learning processes. Therefore, future teaching reforms should establish comprehensive ethical standards and guidelines for technology application, ensuring that the use of AI technology conforms to educational ethics, respects students' individuality and intellectual freedom, and prevents potential moral risks in technology application. In conclusion, the future of AI-enabled innovation in teaching models for Ideological and Political Courses in universities is full of opportunities and challenges. In the process of deeply integrating AI technology into teaching, it is essential to maintain the organic combination of technology and education, ensuring that technology always serves teaching goals and educational functions. While promoting technology application, it is necessary to emphasize the core role of teachers in the classroom, respect students' privacy rights and intellectual freedom, and ensure that the application of AI technology in Ideological and Political Courses adheres to ethical standards. Through continuous exploration and reflection in future teaching reforms, we can better leverage AI's potential in the teaching of Ideological and Political Courses, advancing ideological and political education in universities towards a more intelligent, personalized, and humanistic development path.

6. Conclusion

AI-enabled innovation in teaching models for Ideological and Political Courses provides new solutions to address existing issues such as poor interaction and low student engagement. Through the application of various AI technologies, such as intelligent assessments, personalized teaching design, and scenario-based simulations, the teaching models are gradually evolving towards greater intelligence, personalization, and diversification. In the future, AI will play a larger role in improving teaching quality, enhancing students' political literacy, and promoting educational reform. However, attention must also be paid to maintaining the teacher's guiding role, protecting data privacy, and addressing ethical concerns during technology application to ensure that AI technology truly serves teaching objectives and educational functions, providing strong support for the sustainable development of ideological and political education in universities.

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