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Research on Strategies for AI-empowered Teaching of Ideological and Political Courses in Colleges and Universities in the New Era

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Abstract: With the rapid development of artificial intelligence technology, the education field is undergoing a profound transformation. As an important front for cultivating virtue and talents, the teaching models and methods of ideological and political courses in colleges and universities need to keep pace with the times to meet the learning characteristics and ideological needs of students in the new era. This article takes the teaching of ideological and political courses in colleges and universities empowered by AI technology as the research object, explores its necessity, innovative paths, and implementation strategies, aiming to provide theoretical support and practical references for the teaching reform of ideological and political courses.

Keywords: AI-empowerment; New era; Teaching of ideological and political courses

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1. The necessity of teaching reform of ideological and political courses in colleges and universities

1.1. Changes in students' learning styles

With the widespread application of artificial intelligence, the learning styles of college students are undergoing profound changes. Firstly, students' learning environments have expanded from traditional classroom teaching to cyberspace. Learning time and location are no longer strictly restricted [1]. Through mobile terminals and online platforms, students can access learning resources, participate in course discussions, and complete learning tasks anytime and anywhere. This flexibility not only improves learning efficiency but also enhances students' autonomous learning ability. Secondly, students' learning styles pay more attention to personalization and differentiation. Traditional classroom teaching often centers around teachers using unified teaching content and progress, which makes it difficult to meet the learning needs of different students [2]. With the help of AI technology, teaching platforms can intelligently analyze students' knowledge mastery and learning preferences based on their learning behaviors and performances, and then provide personalized learning suggestions and

resource recommendations. This precise learning support can help students better fill knowledge gaps and improve learning effects. In addition, students' learning styles are shifting from passive acceptance to active exploration. The application of AI technology makes teaching content more vivid and contextual. Through technologies such as virtual reality and augmented reality, students can be immersed in the reproduction of historical events or the simulation of social phenomena, thus stimulating their learning interest and thinking ability.

1.2. Changes in the educational environment and discourse power

With the continuous progress of information technology, the teaching environment and discourse system of ideological and political courses in colleges and universities are experiencing profound changes. The traditional classroom teaching model can hardly meet the needs of students in the new era. The trends of digitalization, networking, and intelligence in the educational environment are becoming more and more obvious [3]. Students have more diverse channels to obtain information, and the boundaries of knowledge acquisition are constantly being broken. The traditional one-way knowledge-imparting model centered around teachers gradually exposes its limitations. In the digital age, students' learning behaviors and thinking patterns have changed remarkably. They tend to obtain information through online platforms and are accustomed to fragmented learning and instant interaction. This change in learning style poses new challenges to the teaching of ideological and political courses. The traditional classroom teaching scenario is single and difficult to meet students' needs for diversified learning experiences. At the same time, the openness and inclusiveness of the educational environment are constantly improving. Students' ideological concepts are more diversified, putting forward higher requirements for the teaching content and form of ideological and political courses [4]. In the change of the educational environment, the transfer of discourse power is a phenomenon that cannot be ignored. In the past, as the authority of knowledge, teachers held the dominant right in the classroom. However, in the digital age, students' ability to obtain information through the Internet is constantly increasing. Their access to knowledge is no longer limited to the classroom, and they can conduct autonomous learning through multiple channels. In this case, the authority of teachers is challenged to a certain extent, and the traditional "discourse power" gradually shifts from teachers to students. The teaching of ideological and political courses needs to find a new position in this change. It is necessary to maintain the leading role of teachers while respecting the dominant position of students and constructing a more equal and interactive teaching relationship [5].

1.3. Limitations of teaching resources and scenarios

With the in-depth advancement of education reform, the teaching of ideological and political courses in colleges and universities faces unprecedented challenges. Firstly, the limitations of teaching resources are reflected in the singularity of content and form [6]. Although the content of traditional ideological and political textbooks covers Marxist theory, the thought on socialism with Chinese characteristics, etc., its presentation form is mostly text-based, lacking dynamics and interactivity. Students are likely to feel bored during the learning process, and it is difficult to stimulate their learning interest and initiative. Secondly, the limitations of teaching scenarios are mainly manifested in the limitations of time and space. The traditional classroom teaching model is based on fixed time and place, and students' learning activities are restricted to the physical space of the classroom. This single-type teaching scenario is difficult to meet the needs of students to learn anytime and anywhere. Especially in the information age, students' demands for fragmented learning and personalized learning are increasing. Finally, there are also problems of unbalanced access channels and distribution methods of teaching resources [7].

Some colleges and universities, due to limitations in funds, technology, etc., find it difficult to introduce advanced teaching resources and technical means, resulting in an uneven distribution of teaching resources. Some students, due to geographical location or economic conditions, cannot access high-quality teaching resources, which affects educational fairness to a certain extent.

2. Innovative paths for AI-empowered teaching of ideological and political courses in colleges and universities

2.1. Building intelligent teaching platforms

Intelligent teaching platforms can provide comprehensive support for the teaching of ideological and political courses by integrating modern information technologies such as artificial intelligence, big data analysis, and cloud computing. This can achieve the optimal allocation of teaching resources, precise management of the teaching process, and comprehensive improvement of teaching effectiveness. Firstly, intelligent teaching platforms can realize the intelligent integration and sharing of teaching resources. The platform can classify and store high-quality teaching resources for ideological and political courses, and through intelligent recommendation algorithms, accurately push relevant learning content according to students' learning needs and interest characteristics [8]. For example, the platform can recommend corresponding course videos, case analyses, and literature materials based on students' learning progress and knowledge mastery, helping students build personalized learning paths. Secondly, intelligent teaching platforms can achieve intelligent management and interaction in the teaching process. The platform can use AI technology to monitor students' learning behaviors and classroom performances in real-time. For example, it can analyze students' classroom speeches through natural language processing technology or perceive students' emotional states through facial expression recognition technology. Based on these data, the platform can generate real-time learning reports and provide personalized teaching suggestions for teachers. Finally, the construction of intelligent teaching platforms also needs to focus on the deep integration of technology and education. The design of the platform should fully consider the teaching characteristics and actual needs of ideological and political courses, avoiding simply pursuing technological advancement while ignoring the actual educational effects. At the same time, the use of the platform requires adaptation and learning from teachers and students. For example, teachers' technical application ability can be improved through training, and students can be guided to familiarize themselves with the functions and operations of the platform [9].

2.2. Diversifying and three-dimensional teaching scenarios

In traditional ideological and political course teaching, teaching scenarios are often limited to classroom lectures and textbook content, which makes it difficult to meet students' diverse learning needs and interests. However, through the application of AI technology, it is possible to break through time-space limitations and construct richer and more dynamic teaching scenarios, thereby enhancing the attractiveness and effectiveness of teaching. Firstly, AI technology can transform abstract theoretical knowledge into specific scene experiences through means such as virtual reality (VR) and augmented reality (AR). For example, when explaining historical events, VR technology can be used to simulate historical scenes, allowing students to "immerse" themselves in the changes of history, thus deepening their understanding of theories. Secondly, AI technology can support the dynamic and personalized teaching scenarios [10]. Through big-data analysis and intelligent algorithms, the system can dynamically adjust teaching content and scenarios according to students' learning characteristics and interest

preferences. For example, for students at different levels, the system can provide learning tasks and scenarios of different difficulties to meet personalized learning needs. In addition, AI technology can also achieve multi-dimensional integration of teaching scenarios. By combining online and offline teaching scenarios, a "virtual-real combination" teaching model can be constructed. For example, in the classroom, teachers can use AI-assisted systems to analyze students' learning states in real-time and adjust teaching content based on feedback. After class, students can participate in virtual discussions, case analyses, and other activities through online platforms to further consolidate what they have learned. This multi-dimensional teaching scenario can not only enhance the flexibility of teaching but also improve students' learning experiences.

2.3. Application of big data and context-awareness systems

The application of big-data and context-awareness systems injects new vitality into the teaching of ideological and political courses in colleges and universities. Through intelligent and precise technical support, it can better meet students' personalized learning needs and improve the pertinence and effectiveness of teaching. On the one hand, big-data technology provides comprehensive data support for the teaching of ideological and political courses [11]. Through multi-dimensional data collection and analysis of students' learning behaviors, knowledge mastery, and emotional attitudes, a learning profile of students can be constructed, accurately identifying students' learning characteristics and weak links. For example, by analyzing students' performances in classroom interactions, after-class assignments, and online learning platforms, it can be found that students have a low mastery of certain ideological and political knowledge points or a high interest in certain topics. These data provide a scientific basis for teachers, enabling them to adjust teaching content and strategies according to the actual situation of students and avoiding the traditional "one-size-fits-all" teaching model. On the other hand, the context-awareness system provides dynamic support for the teaching of ideological and political courses by perceiving students' learning scenarios and psychological states in real-time. The context-awareness system can push relevant content and resources by combining students' physical environment, learning scenarios, and emotional states. For example, when students participate in social practice or visit red education bases, the system can push relevant red historical materials or ideological and political cases according to students' geographical locations and learning scenarios, enhancing the pertinence and immersion of learning. At the same time, the context-awareness system can also identify students' emotional fluctuations by analyzing their emotional states and provide timely psychological support and guidance. In this way, it can not only improve students' learning experiences but also help students better understand and internalize the core values of ideological and political courses.

3. Implementation strategies for AI-empowered teaching of ideological and political courses

3.1. Improving teachers' technical literacy

In the context of the rapid development of AI technology, teachers of ideological and political courses in colleges and universities need to master the basic principles and application scenarios of AI technology to better integrate it into teaching practice [12]. Firstly, colleges and universities should construct a systematic teacher technical literacy training system. By combining theoretical learning, practical operation, and case analysis, it helps teachers understand the core concepts of AI technology, such as natural language processing, machine learning, and big data analysis, and master the use of relevant tools. Secondly, colleges and universities should provide

teachers with diverse learning resources and support. By establishing an online learning platform and providing AI-technology-related course resources, such as video tutorials, e-books, and practical cases, it helps teachers learn anytime and anywhere [13]. At the same time, organize special lectures, training workshops, and experience exchange meetings, and invite experts and excellent teachers in the field of AI technology to share practical experiences, helping teachers broaden their horizons and improve their technical application abilities. In addition, colleges and universities should pay attention to cultivating teachers' educational technology application abilities. The application of AI technology in education requires teachers to have a certain degree of technical sensitivity and innovation ability, and be able to combine technology with teaching goals. For example, teachers can learn how to use AI technology to design interactive teaching activities or how to use intelligent evaluation systems to accurately assess students' learning effects. Through these practices, teachers can better integrate technology into teaching and improve the pertinence and effectiveness of teaching.

3.2. Constructing an interdisciplinary knowledge system

In the context of the new era, the teaching of ideological and political courses in colleges and universities faces a complex social environment and diverse student needs. The traditional single-discipline knowledge system is difficult to meet the needs of teaching practice [14]. Therefore, constructing an interdisciplinary knowledge system is not only an inevitable choice to improve the teaching effect of ideological and political courses but also an important measure to adapt to educational changes in the new era. The construction of an interdisciplinary knowledge system requires the integration of theoretical and practical achievements of multiple disciplines, and the deep integration of ideological and political course teaching with disciplines such as artificial intelligence, big data, psychology, and pedagogy. From an interdisciplinary perspective, it is possible to better understand students' ideological trends and value concepts, and thus design more targeted and effective teaching content. In specific practices, the construction of an interdisciplinary knowledge system needs to start from the following aspects.

Firstly, colleges and universities should strengthen the construction of interdisciplinary teaching teams, encouraging teachers from different disciplines to participate in the teaching design and implementation of ideological and political courses. Through the cooperation of interdisciplinary teams, knowledge can be complemented and integrated, injecting new vitality into the teaching of ideological and political courses. Secondly, colleges and universities should optimize the curriculum settings and integrate interdisciplinary knowledge into the teaching of ideological and political courses. For example, when teaching socialist core values, theories from disciplines such as economics and sociology can be combined to help students better understand their connotations and practical significance. Finally, colleges and universities should pay attention to cultivating teachers' interdisciplinary abilities. Through training, research, and other methods, teachers' interdisciplinary horizons and teaching abilities can be improved.

3.3. Optimizing the smart learning network

The construction of a smart learning network needs to be optimized from multiple dimensions, including infrastructure, resource construction, personalized learning support, and teacher-student interaction methods, combined with the characteristics of artificial intelligence technology [15]. Firstly, colleges and universities should strengthen the infrastructure construction of the smart learning network, including a high-speed and stable network environment, intelligent learning terminal devices, and a cloud-based resource storage and management platform to ensure the smooth progress of teaching activities. Secondly, the optimization of the smart learning

network requires attention to the integration and sharing of resources. Colleges and universities can use artificial intelligence technology to build an open and shared teaching resource library for ideological and political courses, which contains course videos, teaching cases, interactive modules, virtual simulation scenarios, etc. Through big-data analysis, the resource library can dynamically adjust resource content according to students' learning needs and interest characteristics to achieve accurate resource push. In terms of teacher-student interaction, optimizing the smart learning network requires the construction of a multi-dimensional interaction platform. The traditional classroom interaction model is often limited by time and space, while the smart learning network based on artificial intelligence can break through this limitation. For example, teachers can interact with students through online discussion forums, live-streaming courses, virtual reality (VR) scenarios, etc., enhancing the sense of participation and immersion in the classroom. At the same time, the smart learning network can also record the process of teacher-student interaction, providing data support for subsequent teaching reflection and improvement.

4. Conclusion

In conclusion, AI-empowered teaching of ideological and political courses in colleges and universities can not only improve teaching effectiveness but also promote the innovation and upgrading of teaching models for ideological and political courses. Through the deep integration of technology and education, it is possible to better meet the ideological needs of students in the new era and cultivate socialist builders and successors with a sense of social responsibility, innovative spirit, and practical ability.

Disclosure statement

The author declares no conflict of interest.

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