

Research on the Challenges and Countermeasures of Ideological and Political Education for College Students in the Context of AI

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Abstract: With the rapid economic development at present and the rapid popularization of artificial intelligence technology, the field of education has also been influenced by artificial intelligence technology. As an important component of the higher education system, ideological and political education for college students is confronted with challenges in the process of integrating traditional teaching and education models with intelligent technologies. At the same time, it has injected new energy into the current ideological and political education for college students and brought new opportunities to artificial intelligence technology. Based on the background of the AI environment, this article systematically explores the innovative paths and response strategies for ideological and political education among college students, aiming to provide theoretical support and practical directions for ideological and political education among contemporary college students.

Keywords: AI, College Students, Ideological and Political Education.

1. Introduction

With the rapid development of current artificial intelligence technology, the Internet, cloud computing and other fields, the deep integration of AI and ideological and political education for college students has become an important research topic in the field of education today. AI technology has promoted ideological and political work among college students. It has injected new impetus of precision, proceduralization, personalization and interactivity into ideological and political education, creating opportunities for change in the guidance of ideological values, the transmission of knowledge and the cultivation of abilities for contemporary college students. Facing the new situation where opportunities and challenges coexist, this article, based on the background of the AI environment, systematically sorts out the new opportunities that ideological and political education work is confronted with under the empowerment of AI technology. Through the dual construction of theoretical exploration and practical paths, it has promoted the deep integration of AI technology and ideological and political education work, achieving guidance from AI technology empowerment to students' ideological values, providing a solid theoretical support for cultivating socialist builders and successors who are well-rounded in morality, intelligence, physical fitness, aesthetics, and labor. Innovation and development of ideological and political education work in the context of the AI intelligent era.

2. The Practical Challenges Faced by Ideological and Political Education Empowered by AI

(1) The ethical dilemma of technology

The predicament in terms of technical ethics. The application of AI technology in ideological and political education has sparked profound technical ethics controversies. In the daily process of ideological and political education, it is often necessary to collect students' personal and family

information, daily behavior data, study and life conditions and other special and sensitive information. If there are omissions or loopholes in the collection and organization of data, it is very easy to cause the leakage of students' personal information. Take the "intelligent recommendation algorithm" as an example. During the process of personalized push, the intelligent recommendation algorithm may form an "information cocoon", leading to the idea resources that students come into contact with tending to be monotonous and the information they access not being comprehensive enough. For instance, a survey conducted by a certain university revealed that among students who overly rely on algorithmic recommendations, the majority exhibit a tendency towards cognitive isolation, may make unfair recommendations or evaluations towards specific groups, and have a significantly reduced tolerance for different viewpoints. For example: In the psychological assessment system of colleges and universities, there is a situation where the digital monitoring system misjudges a student's "psychological abnormality" due to the student's incorrect attitude towards the assessment and reports it to the counselor. After the counselor has a heart-to-heart talk with the student to understand the actual situation of the student, it is found that the student may not have any psychological abnormality. What is more serious is that Algorithmic bias may imply the risk of value orientation - when algorithms equate "mainstream values" with "high-frequency words", they may neglect the interpretation of the deep connotations of values, leading to formalized and labeled value indoctrination.

(2) The difficulty of adapting educational content

At present, in the process of ideological and political work among college students, AI tends to overly rely on data-driven approaches and neglect moral judgment and humanistic care. The main problems existing in current educational content are as follows: First, it is de-contextualized, with value output carried out of the specific social context, making educational content become a "castle in the air". The second is entertainment. Excessive use of gamification designs to attract students' attention has weakened the depth of

theoretical knowledge. The third issue is fragmentation. Some universities break down the content of ideological and political education into multiple knowledge points for algorithmic matching, resulting in a fragmented knowledge system. Over-reliance on AI may weaken the emotional role of teachers, resulting in a lack of subjective emotional awareness and making it difficult to replace the emotional communication and exchange between teachers and students [1].

(3) The predicament of teachers' role transformation

AI technology has put forward new requirements for the transformation of teachers' roles: gradually shifting from knowledge transmitters to learning guides, from being the main speaker in the classroom to a technical collaborator, and from being a single evaluator to a growth companion. Teachers' excessive reliance on the content recommended by AI technology may weaken their intuitive judgment and their own experience accumulation, leading to technological dependence. Sometimes, AI's ability to recognize and process complex emotions is limited, and it cannot effectively capture the deep-seated ideological trends and emotional needs of students. Teachers need to have the ability to conduct in-depth exploration. Discover the inner needs of students and take the initiative to explore and discover their formal inner thoughts. Meanwhile, teachers are also confronted with three major obstacles: The first is the crisis of role identity. Some teachers are worried about being "replaced by technology", which leads to professional anxiety. The second is the capability gap. Teachers need to master knowledge from multiple disciplines such as educational psychology, algorithmic ethics, and digital literacy simultaneously. The third is the fear of technology. Some ideological and political teachers have the mentality of "not knowing how to use it, not daring to use it, and not willing to use it".

3. New Opportunities for Ideological and Political Education Empowered by AI Technology

(1) The realization path of precise education

With the rapid development of artificial intelligence, AI technology can, through big data analysis and machine learning algorithms, construct a dynamic image of students' ideological and political literacy. By integrating multi-dimensional information such as students' daily behavior data, online social traces, and course learning records, and using cluster analysis algorithms, five typical student groups were identified: the proactive type, the neutral and wait-and-see type, the passive and resistant type, the value ambiguity type, and the special concern type. According to the characteristics of different groups, the system automatically pushes customized educational content - for proactive and enterprising students, it sends in-depth theoretical articles; for passive and resistant students, it uses affective computing technology to guide their emotions; and for students with special concerns, it initiates psychological intervention mechanisms. This precise educational model has transformed ideological and political education from a flood irrigation approach to a precise drip irrigation one. Among college counselors, the application of artificial intelligence systems to analyze the family situations, economic difficulties, academic conditions, and campus life of students in the current major they are in charge of is of great significance and has a powerful advantage. This helps counselors organize, classify,

and identify data, significantly improving their work efficiency and providing more precise assistance to students. Although AI cannot replace teachers' humanistic care, it can choose some life themes that are close to students to evoke their emotional resonance.

(2) Construction of immersive educational scenarios

The integrated application of virtual reality and augmented reality technologies has opened up a new dimension of immersive experience for ideological and political education [2]. Utilize AI painting to quickly generate pictures of red culture and enhance students' perceptual cognition. This multimodal interactive experience transforms abstract ideological and political education theories into perceptible scenarios, enhancing students' participation and significantly improving the retention rate of knowledge. In the "Red Culture Inheritance" course, college students can wear VR devices to "travel back" to the revolutionary era, experience the snow-capped mountains and grasslands along the Long March, and feel the mud of the grassland and the cold of the snow-capped mountains through haptic feedback devices, as well as the hardships of their predecessors.

(3) Intelligent education evaluation system

Based on natural language processing, for instance, multi-dimensional data such as students' daily behavioral habits, classroom attendance, classroom participation, homework completion, and daily life conditions are collected and analyzed. By using relevant computational analysis programs, the intelligent system evaluates the specific situation, achieving a transformation from result evaluation to process evaluation. In the AI era, the content of ideological and political education needs to not only conform to the logic of technology but also be in line with humanistic care and moral judgment. AI can systematically adjust relevant teaching content, learning resources, design related teaching scenarios and content, and actively guide students to reflect and correct. Improve the corresponding safety regulations, formulate the corresponding algorithm transparency, and ensure that intelligent evaluation operates within the framework of ethics. Strengthen the training of teachers, enhance their ability to operate AI tools, interpret data, and make judgments and analyses, develop corresponding AI educational content and evaluation systems, promote the participation of other forces such as schools, families, and society, and form a collaborative education system featuring information and resource sharing, truly achieving the fundamental task of fostering virtue and nurturing talent.

4. Countermeasures for Ideological and Political Education in the Context of AI

(1) Build a technological governance system

Adhere to individualized learning paths for students and enhance their ability to think independently and internalize values. The recommendation system must retain a manual review channel and implement a "double-blind review" for recommended content involving value guidance - both reviewing the scientific nature of the content and assessing the fairness of the algorithm [3]. Optimize data, ensure the diversity of data sources, and eliminate biases regularly. Build outstanding alumni cases, create red scripts, enhance the transparency of algorithms, ensure correct value orientation, and make educational content logically clear.

(2) Create a path for upgrading educational content

Establish a collaborative creation mechanism of "teacher - technician - student". In the "Red Murder Mystery Game" project team of the university, teachers are responsible for the theoretical framework, technicians for interaction design, and students for experience testing. The three parties jointly developed multiple immersive educational scenarios. Create digital ideological and political classrooms to enable students to deepen their understanding of theoretical knowledge in an immersive way. [4] Through the integration and transformation of technologies, intelligent evaluation, and collaborative education, and by continuously paying attention to the trends of technological development, adjust corresponding strategies in a timely manner to ensure that the upgraded and reconstructed content resonates with the requirements of the new era.

(3) Implement the teacher development empowerment program

Personalized learning design: Based on students' learning styles, customize "one-on-one" learning plans. Strengthen the construction of critical thinking. For instance, develop an AI debate assistant that simulates different value positions, guiding students to engage in dialectical thinking from various perspectives and stimulating their dialectical thinking and critical thinking. Teaching Innovation Workshop: Establish a closed-loop training model of "design - practice - reflection - iteration". In the "AI-Assisted Instructional Design" workshop, teachers simulate classroom scenarios through VR devices, and AI coaches provide real-time feedback on instructional design deficiencies, enhancing teachers' instructional design capabilities. Improvement of technical literacy Develop the "AI+ Ideological and Political Education "micro-certificate system and the" Ideological and Political Education AI Toolkit ", which includes three levels: basic skills, advanced applications, and innovative designs. This enables teachers to master how to effectively utilize AI tools to analyze students' value tendencies, carry out special privacy protection training programs, clarify the boundaries of specific collected information, data, and materials, and avoid excessive or overstepping behaviors. Role transformation support: Build a three-dimensional support system of "mentor - peer - technology". Establish an "AI education tool" to assign each transitioning teacher a technical mentor, teaching companion and AI assistant, forming a support chain of "problem discovery - solution - effect evaluation". Develop a corresponding AI communication platform between schools and families to achieve real-time sharing of the cultivation of students' values between schools and families. For example, parents can check their children's values in a timely manner through the corresponding AI communication platform and participate in

online parent classes.

5. Conclusion

The development and popularization of AI technology have brought unprecedented opportunities to the ideological and political education of college students in universities, while at the same time bringing difficulties and challenges. In the face of practical challenges such as the predicament of technical ethics, the difficulty of adapting educational content, and the transformation predicament of teachers' roles, it is necessary to establish a technical governance system and create a path for upgrading educational content. Through institutional innovation, model innovation and technological innovation, promote the in-depth intersection and integration of AI technology and ideological and political education, and achieve an upgrade from technological empowerment to value leadership. Under the background of the new era, ideological and political education for college students should neither adhere to tradition nor blindly worship technology. It is of great significance for the ideological and political education work of contemporary college students to seize the time window of AI technology development, build a technology empowerment plan, and write a new chapter of ideological and political education belonging to this era in the AI tide.

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