Transformation and Development: Basic Logic and Conception of the Artificial Intelligence-empowered Ideological and Political Education of College Students

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Abstract: In the face of the profound changes brought by the empowerment of artificial intelligence to the ideological and political education of college students in China, through a questionnaire survey of 1,369 college students. this research adopts the research logic of "3+4+5" to deepen the discussion on the theoretical and practical path of their integration. In detail, first of all, this research further clarifies the transformation logic concerning the empowerment of the ideological and political education of college students by artificial intelligence from four perspectives, including new means and carriers, content and form, ways and strategies, challenges, and problems. At last, this research proposes five strategies to promote the high-quality development of the ideological and political education of college students, including the construction of intelligent campuses, the introduction of intelligent talents, the cultivation of intelligence literacy, the improvement of the guarantee system, and international exchanges and cooperation.

Keywords: Artificial Intelligence; College Students; Ideological and Political Education; Basic Logic; Conception

1. Foreword

Nowadays, artificial intelligence (hereinafter referred to as AI) has silently penetrated into all aspects of people's study, work, and life, exerting a wide range of influence on these fields. *China's Education Modernization 2035* incorporates "speeding up education reform in the information era" into ten strategic tasks to promote education modernization. Within this context, a question worthy of in-depth consideration can be summarized as what kind of collision, inspiration, challenge, and opportunity will be brought about by the integration of AI with ideological and political education as an important part of higher education. [1]

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2. Values Concerning the Ideological and Political Education of College Students in the AI Era

2.1 Values of Times Embodied in the AI-empowered Ideological and Political Education of College Students

First of all, it shows the personalized characteristics of college students in the new era. It is necessary to leverage AI technology to construct a personalized portrait of college students, and to present it clearly in the form of mapping. Secondly, it improves the ability and accomplishment of ideological and political educators. The application of AI technology is beneficial to reduce the burden of educators so that they will devote more time and energy to expanding and deepening their own literacy and knowledge system^[2]. Moreover, the application of AI technology can enable them to establish a more accurate insight into the knowledge level, ability level, and ideological dynamics of college students, to enhance emotional identification with theoretical knowledge. Thirdly, it enhances the learning effect of courses. By using big data technology to obtain and integrate various kinds of information of college students, AI can realize accurate distribution and intelligent push of educational information and resources, thus reducing the mental loss of learners during the process of content screening. [3] Last but not least, it promotes the fairness and optimization of ideological and political education resources. AI technology provides strong support for the sharing and co-construction of high-quality educational resources, whereby some remote areas with scarce educational resources and low teaching quality can enjoy high-quality learning resources. As the case stands, this is conducive to improving the educational fairness of the country.

3. Transformation: Logical Analysis of the AI-empowered Ideological and Political Education of College Students

AI-empowered ideological and political education of college students is recognized as a new educational form with strong advancement and modernity, We selected 1,369 college students of different majors and grades to conduct a questionnaire survey in Figure 1:

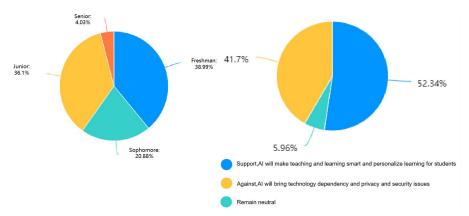


Figure 1: Subjects of the research and their attitudes

3.1 AI Providing Brand-new Means and Carriers

AI technology can realize the "cross-time-and-space" development of ideological and political education through big data analysis and virtual reality. For example, AI technology can use intelligent systems to analyze students' intelligence index, interests, and other relevant factors, and push relevant learning content to improve their learning quality. In addition, virtual reality technology can be used to integrate students into historical and social situations. In particular, AI technology can provide students with assessment and feedback based on their learning data, thus helping them to better understand the theoretical and practical experience of ideological and political education. From the research data, we can see that most students recognize the "benefits" brought by AI-enabled Civic Education in Figure 2:

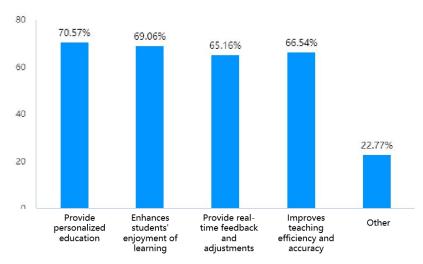


Figure 2: What are the advantages compared with traditional ideological and political education

3.2 AI Creating Fire-new Content and Forms

AI technology provides a range of new educational content for college students, encompassing AI itself, AI ethics, AI security, AI law, etc. Meanwhile, it can be used to collect and mine more comprehensive data related to the diversity of ideological and political education, thus enabling students to access more specific and richer educational content. Furthermore, the application of AI technology endows ideological and political education with diversified teaching forms. For instance, it can not only provide customized learning resources and guidance for students , and abilities, but also create interactive and immersive learning situations.

3.3 AI Forming Unique Ways and Strategies

AI technology can provide students with a "real" learning environment and experience based on virtual reality so that they can feel society, politics, and culture in real scenes. Using artificial intelligence matrix, it realizes real-time communication, real-time feedback and real-time correction between ideological educators and college students, and breaks through the dilemma of traditional education. Through intelligent online evaluation, AI technology can

make students understand their ideological and political quality and ability level more comprehensively. Moreover, AI technology can make it easier for students to acquire and learn knowledge through an intelligent knowledge-mapping learning system in Figure 3:

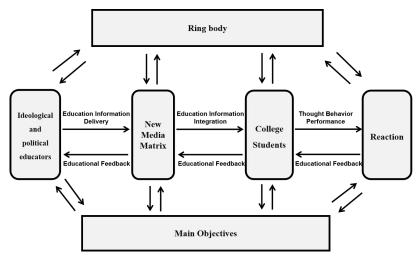


Figure 3: Artificial intelligence matrix

3.4 AI Bringing Various Problems and Challenges

The application of AI in ideological and political education is essentially a "double-edged sword", which is mainly reflected in the ethical and security issues arising in the practical application process. As a whole, the application of AI in ideological and political education exposes a host of defects, including the general backwardness in the construction of intelligent ideological and political systems, the unsound intelligent infrastructure, the simplification of intelligent teaching products, and the low openness of intelligent platforms. Additionally, with the weakening of the leading role and authority of ideological and political educators, teachers are no longer the only authoritative educational subject and knowledge provider for students to learn. More importantly, the "pan-mechanization" eliminates the subjectivity of college students, which tends to weaken their independent thinking and innovation ability in Figure 4 and 5:

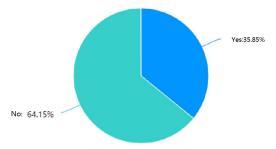


Figure 4: Whether high-tech devices such as artificial intelligence will be used to commit academic misconduct

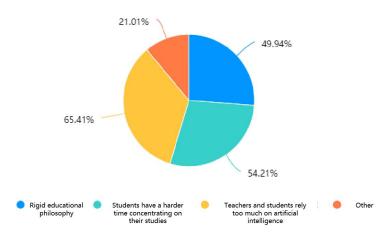


Figure 5: Artificial Intelligence Empowers College Students' Ideological and Political Education What are the dilemmas in political education

4. Breakthrough: Development Conception of AI-empowered Ideological and Political Education of College Students

4.1 Constructing an Intelligent Campus Platform and the Ecology of Intelligent Ideological and Political Education

- 4.1.1 To improve the intelligent education infrastructure and promote the development of intelligent teaching models. Perfect hardware infrastructure should be established. The intelligent online teaching platform and software provide personalized learning and tutoring services for students through various technologies such as push technology, integrated semantic analysis technology, and adaptive technology. Furthermore, colleges should build a complete database of campus educational resources and support the digital management of the teaching process.
- 4.1.2 To promote the digital transformation of ideological and political education, as well as create a digital education and teaching environment. The intelligent campus is not only the foundation for universities to cultivate talents but also an important means to realize educational innovation and change in the digital era. Hence, colleges and universities should promote the construction of intelligent campuses, providing students with a more efficient, convenient, and personalized learning environment through the construction of various intelligent facilities including intelligent libraries, intelligent classrooms, digital laboratories, etc.
- 4.1.3 To innovate the intelligent ideological and political education ecology and construct diversified intelligent education systems. The continuous development and popularity of mobile intelligent platforms and educational intelligent products enable learners to switch freely between real and virtual environments. Also, the wide application of the open teaching system represented by the flipped classroom provides a brand-new opportunity for the interaction and virtualization of the learning space.

4.2 Introducing AI Talents and Establishing the Concept of Targeted Ideological and Political Education

Introducing AI experts to ideological and political education will revolutionize traditional thinking and improve pedagogical practices in the field. Promoting the optimization and upgrading of the education team is an important condition to promote the development of ideological and political education of college students. ^[4] In particular, the introduction of educators with an AI discipline background and AI technology application ability can inject intelligent and digital elements into ideological and political education through their professional knowledge and ability, thus promoting interdisciplinary-based education. The introduction of AI experts into the ideological and political education field will subvert traditional thinking patterns and improve teaching practices. ^[5]The establishment of accurate ideological and political concepts, through data analysis, enables precise understanding of students' learning characteristics and requirements, leading to the development of personalized and targeted ideological and political programs.

4.3 Expanding Innovative Thinking Ability and Improving Intelligence Literacy in an All-round Way

To expand innovative thinking. The ideological and political education of college students needs to focus on cultivating students' innovative thinking and ability so that they can acquire new knowledge, explore new fields, find new problems, and put forward new ideas in the rapidly-changing information environment. To cultivating versatile talents. The complexity and fast pace of modern society require talents to possess interdisciplinary thinking and a multi-disciplinary knowledge structure. Given this, college students needs to highly value the cultivation of versatile talents. During the actual teaching process, educators should pay attention to the integration of diversity and interdisciplinary, thus guiding students to flexibly use the knowledge and skills of different disciplines. ^[6]To improve intelligence literacy, educators should create an intelligent learning environment in teaching to help students master the methods and skills of the scientific use of AI technology, intending to improve their intelligence literacy in numerous aspects, such as information acquisition, knowledge processing, opinion judgment, and decision-making.

4.4 Establishing and Perfecting the Guarantee System and Creating Fertile Soil for Intelligent Ideological and Political Education

Given that it involves numerous aspects such as AI governance system, implementation of subject responsibility, and improvement of management and supervision system, it is imperative to establish a complete AI system guarantee mechanism, strengthen the responsibility of various governance subjects, and standardize AI application behavior. Meanwhile, it is strongly recommended to formulate AI ethics regulations to clarify the bottom line and standard of AI technology R&D, application, and management, thereby effectively promoting the healthy development of AI. [7]On the same note, it is necessary to strengthen the R&D and application of AI technology, as well as overcome the weaknesses of AI technology to ensure the safety.

4.5 Strengthening International Exchange and Cooperation to Spread China's Ideological and Political Culture

It is strongly recommended to promote international academic exchanges between universities and scholars and to encourage them to conduct profound exchanges on related academic topics such as educational technicalization, educational intellectualization, and intelligent ideological and political education. Secondly, the government can hold cultural exhibitions and humanities lectures through bilateral and multilateral mechanisms to expand the communication channels of ideological and political culture. Then, it can be considered to use the network platform to create a "phenomenal" propaganda carrier with great popularity and authoritative academic media, so that all countries in the world can understand China's culture.

5. Conclusion

We should not only grasp the development trend of AI technology, actively explore and give full play to the role and value of AI technology in the ideological and political education of college students.

Reference literature:

- [1] Olaf Zawacki, Richter et al. Systematic review of research on artificial intelligence applications in highereducation, where are the educators, International Journal of Educational Technology in Higher Education, 2019(10);
- [2] Bing Feng, The Impact of Entrepreneurial Passion on Psychology and Behavior of Entrepreneurs, Frontiers in psychology, 2020;
- [3] Lin Feng: Value Orientation and Development of Ideological and Political Education in the Age of Artificial Intelligence, Ideological and Theoretical Education, No. 1, 2020, pp. 79-83;
- [4] Wang Lin, Investigation and analysis of the current situation of the application of WeChat public account in higher vocational education, Journal of Physics: Conference Series, 2020
- [5] Zhou Liangfa, "Intelligent Thought and Politics: Ideological and Political Education Reform in the Era of Artificial Intelligence", Journal of Chongqing University of Posts and Telecommunications (Social Science Edition), No.31, 2019, pp. 69-75
- [6] Popenici, Stefan; Kerr, Sharon. Exploring the impact of artificial intelligence on teaching and learning inhigher education. Research and Practice in Technology Enhanced Learning. 2017(11);
- [7] Wu Dongsheng, Hao Bowei. "Analysis on the Effective use of Artificial Intelligence in Ideological and Political Education", Subject Studies of Marxist Theory, No.5, 2019, pp. 103-112.