

Digital Technology Empowers Ideological and Political Education Research in Colleges and Universities

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ABSTRACT

Against the backdrop of the accelerated evolution of digital civilization, digital technologies such as big data and artificial intelligence are profoundly reshaping the educational ecosystem, providing brand-new opportunities for the innovative development of ideological and political education in colleges and universities. Based on the three-dimensional logic of policy-driven, practical challenges and technological opportunities, this article systematically sorts out the institutional framework and practical foundation of digital technology empowering ideological and political education in colleges and universities, deeply analyzes core issues such as the predicament of technology adaptation, the alienation of subject-object relations, and ethical security risks, and proposes practical paths from three dimensions: technological integration and innovation, the construction of human-machine collaborative ecosystems, and the strengthening of ethical security barriers. It aims to provide theoretical references and practical guidance for colleges and universities to enhance the contemporaneity, appeal and effectiveness of ideological and political education by leveraging digital technology.

KEYWORDS

Digitaltechnology; Ideological and political education in colleges and universities; Educational innovation

1 Introduction

In the era of big data, digital educational methods have added new strength to the field of education. Colleges and universities should seize this technology to optimize the education system and enhance the effectiveness of ideological and political education in colleges and universities.

2 The three-dimensional logic of digital technology empowering ideological and political education in colleges and universities

2.1 Policy-driven: top-level design of the institutional framework

The state has formed the policy foundation for technology empowering ideological and political education through three types of policy systems, creating a full-chain guarantee pattern of "foundation - subject - environment". The supply-oriented policy forms a technical foundation support. The implementation and establishment of China's smart service education platform have provided a platform for the cross-domain intercommunication and digital upgrading and transformation of excellent ideological and political education resources. Demand-oriented policies focus on enhancing the subject's quality. The release of the "Teacher Digital Literacy" education industry standard in 2022 has clarified the development requirements for teachers in terms of digital awareness, computational thinking, and digital teaching ability, promoting universities to systematically improve teachers' ability to conduct ideological and political education using digital technology through various forms such as specialized training, school-enterprise cooperation, and skills competitions. Environmental policies have strengthened institutional guarantees and formed a multi-level regulatory system. The "Opinions on Accelerating the Digitalization of Education" jointly issued by the Ministry of Education and nine other departments proposed "improving the guarantee system" and "building a solid safety barrier", covering aspects such as facility improvement, standard completeness, ethical governance, and collaborative cooperation, creating a favorable policy environment for technology to empower ideological and political education.

2.2 Practical challenges: the urgent demand for the contradiction between supply and demand

Digital intelligent technology has been highly integrated into the development process of college students. Moreover, the cognitive forms, value shaping, and learning needs of college students have undergone significant changes due to it, which is in contradiction with the previous supply methods of ideological and political education, further highlighting the urgency of technological empowerment. There is a tension between the incompleteness of cognition and the systematic supply of services. The algorithmic recommendation mechanism places college students in personalized information, making them prone to fall into an "information cocoon", which leads to the one-sidedness of cognitive knowledge. The in-

depth demands of all scenarios and the confined educational space are in contradiction. College students are more adapted to the campus activity mode that closely connects online and offline. Social platforms, digital communities, and short-video platforms have become the main fields for them to obtain information and exchange ideas. They are looking forward to ideological and political education breaking through the time and space limitations of classrooms and classes and integrating into their daily study and life. However, the traditional educational space model is relatively closed, and various educational resources are not fully utilized. The joint efforts of all parties in educating people are insufficient, and ideological and political education is difficult to be internalized in people's hearts. Therefore, colleges and universities should promote the integrated and innovative development of digital technology and ideological and political education, and make further efforts to better achieve the educational goals of ideological and political education.

2.3 Technological opportunities: innovative expansion of educational paths

With the extensive application of intelligent technologies, ideological and political education in colleges and universities is also exploring highly precise, comprehensive and intelligent practical approaches, creating new forms of education in colleges and universities. Education is no longer broad and aimless. Precise education is supported by digital technology monitoring. Colleges and universities collect multiple data of students' daily study and life through Internet technology, further enhancing the effectiveness of education. Accurately identify students' ideological confusion, value orientation and development needs. The all-round education model breaks through the spatial limitations of conventional educational methods. The application of digital technology promotes the all-round development of ideological and political education and creates an integration of real and virtual scenarios. Based on digital technology, colleges and universities have built diverse ideological and political teaching Spaces. Students can participate in activities such as visiting red education bases and recreating historical scenes as if they were there, enhancing emotional resonance. Build a digital ideological and political education venue by applying technologies such as the metaverse, form a joint force for multi-party education, and achieve resource intercommunication and sharing. Intelligent teaching assistants are also integrated into teaching to provide students with targeted learning support, and a brand-new smart education model of "ideological and political education everywhere and education at all times" is constructed.

3 Core dilemmas of digital technology empowering ideological and political education in colleges and universities

3.1 Structural contradictions in technology adaptation

There exists a structural contradiction between the rigidity of digital technology models and the value of ideological and political education, which makes it difficult to truly and effectively integrate digital technology into ideological and political education and teaching in the educational process, and the goal of ideological and political education is hard to achieve. This is specifically manifested in the superficial integration of technologies and the inadequate governance and application. The integration of technology remains superficial. In the process of ideological and political education, the application of digital technology is insufficient. Only basic tools are simply used, without achieving in-depth empowerment of the entire educational process. For instance, when some universities use virtual technology to carry out traditional spiritual education, they only focus on restoring the scene but neglect the integration of plot design and theoretical content. Students only gain sensory experiences but fail to deeply understand the core value. Some online ideological and political platforms have become "resource repositories", lacking precise content push and interactive design, and the application of technology is disconnected from the educational goals.

3.2 The risk of alienation in the subject-object relationship

The integration of digital technology into ideological and political education has changed the traditional subject-object relationship in education, resulting in an alienated contradiction between educators and the educated, which is inconsistent with the traditional way of education. The relationship between teachers and students is gradually drifting apart. Intelligent technologies are taking over some of the functions of teachers, reducing the interaction between students and teachers and resulting in insufficient educational affinity. Online Q&A has replaced after-class heart-to-heart talks, and AI correction has replaced face-to-face feedback, gradually weakening the humanistic care in the educational process. In addition, teachers' say has decreased, and students can search for course information through intelligent platforms without listening, thereby writing articles and participating in online discussions, significantly enhancing their initiative in knowledge acquisition. However, in some educational institutions, due to reasons such as older teaching experience, the use of digital technology is not as flexible as that of students. In terms of social hotspots and network

applications, teachers are informed later than students, resulting in insufficient dominant position in the educational process, low student attendance rates, and a decline in the authority of teachers. Finally, the transfer of subjectivity: With the continuous development and application of intelligent technologies, teachers and students have developed a high dependence on intelligent technologies in educational learning. Teachers overly rely on PPTS and teaching platforms, while neglecting the innovation of teaching methods. Students are accustomed to directly obtaining answers from the Internet, lacking independent thinking and critical spirit, which may lead to a lack of thinking among the subjects and go against the essential goal of "cultivating people and minds".

3.3 Dual challenges of ethics and security

The development of digital technology is a "double-edged sword". On the one hand, it adds new strength to the field of education; on the other hand, it also poses serious ethical and security risks. To a certain extent, it has an impact on the development of ideological and political education in colleges and universities. In daily education and teaching, due to the wide application of digital technology, the statistical information databases of teachers and students usually face security issues, and the privacy of teachers and students cannot be effectively guaranteed. The "2024 Data Breach Research Report" shows that in 2023, there were a total of 1,780 attack incidents in the education industry, with 1,537 confirmed data breaches. 68% of them were caused by external attacks, and 32% were due to internal reasons. Some universities have problems such as overly broad data collection scope, non-standard storage and opaque usage, which may lead to the leakage of students' privacy and trigger a trust crisis. Furthermore, due to the massive and dual nature of online information, students will receive various messages from different countries and fields when using platforms such as Weibo. However, college students have not yet formed stable values, resulting in their insufficient ability to screen various messages and weakening the influence of mainstream values. As the forefront of ideological work, colleges and universities are under continuous increasing pressure to prevent and control ideological risks in the application of technology.

4 Practical approaches for digital technology empowering ideological and political education in colleges and universities

4.1 Promote technological integration and innovation, and facilitate symbiotic development of technology and value guidance

4.2 Reshape the human-machine collaborative ecosystem, and adhere to the humanity and subjectivity of ideological and political education

The core of the development of digital educational technology is to provide educational assistance, which cannot replace human subjective initiative. Based on the educational concept of "fostering virtue through education," colleges and universities should comprehensively utilize multiple educational forces and clarify the subject-object structure of education. Strengthen emotional connections between educational subjects and objects, and build a lasting and far-reaching off-class communication model. Enhance emotional exchanges between teachers and students through theme class meetings, tutor talks, and practical activities. In the process of using digital technology for teaching, teachers should not only pay attention to students' mastery of knowledge but also their emotional development, using digital technology to analyze students' development status and provide educational guidance tailored to their individual differences. In addition, attention should be paid to teachers' own development and their proficiency in digital technology, and their teaching skills should be continuously strengthened through special training and assessments. By integrating the functions of digital technology with the guiding and motivating values of teachers, the educational goals of ideological and political education in colleges and universities can be better achieved.

4.3 Strengthen ethical and security barriers to ensure stable and long-term digital transformation of ideological and political education

Colleges and universities should pay close attention to ethical norms and security governance, providing safety guarantees for the integration of digital education into the transformation and development of ideological and political education. Strengthen data ethics governance, and make detailed plans for the scope and purposes of data collection. Classify and protect existing data by levels, set up firewalls for students' personal information and ideological dynamic data to prevent data leakage. Regularly carry out ideological risk inspections, analyze and judge network public opinion hotspots and students' ideological trends, and timely resolve risks and hidden dangers. Finally, build a collaborative

governance pattern, promoting the participation of the government, colleges, enterprises, and society in the ethical and security governance of technology-empowered ideological and political education. Strengthen cooperation with technology enterprises to jointly develop safe technologies and platforms that meet the needs of ideological and political education, and improve the safety and reliability of technology application. Give full play to the role of academic organizations and industry associations, formulate ethical guidelines and industry standards for technology-empowered ideological and political education, guide the standardized development of technology application, and build a safe online educational environment for ideological and political education in colleges and universities. Only by keeping security risks within a controllable range can digital technology better serve ideological and political education in colleges and universities and cultivate batch after batch of resolute inheritors and revivers for the great rejuvenation of the Chinese nation.

5 Conclusion

Digital technology empowering ideological and political education in colleges and universities is an inevitable result of social development, reflecting distinct characteristics of the times. This process not only faces significant opportunities for technology to reshape the educational ecosystem but also needs to address multiple challenges such as technology adaptation, relationship alienation, and ethical security. College teachers should face the new challenges brought by digital technology directly and actively play the main role of educators. In future research, colleges and universities should focus on multi-party collaborative education, deeply integrate digital technology into all links of ideological and political education, and realize the in-depth coupling of technological logic and educational logic. Through continuous exploration and innovation, digital technology should truly become a powerful engine for improving the quality of ideological and political education, strive to cultivate era-ready talents with both virtue and ability who can take on the responsibility of national rejuvenation, Implement the educational goal of fostering virtue and nurturing talent in colleges and universities, and provide strong support for promoting educational modernization and building a strong educational country.

About the Author

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