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An Exploration of the Dilemmas and Strategies in the Digital Development of Ideological and Political Education in Universities

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Abstract: *Under the national education framework emphasizing the fundamental task of fostering virtue through moral education, ideological and political education (IPE) in higher education institutions occupies a central and irreplaceable position. With the rapid development of information technologies and the progressive deepening of digital transformation across all sectors of society, the educational system has also entered a crucial stage characterized by widespread integration of digital technologies, platforms, and methods. To ensure that university IPE keeps pace with contemporary social development, responds to new requirements for talent cultivation, and aligns with the overall modernization goals of higher education, it is vital to attach importance to and actively promote the digital development of IPE. However, due to the influence of historical legacies, resource disparities, conceptual constraints, and technical bottlenecks, digital IPE development in many universities still faces a series of dilemmas that cannot be ignored. Based on an overview of digital IPE, this paper examines the prominent dilemmas encountered in the digital development process and proposes practical, targeted strategies. The purpose is to advance the quality, effectiveness, and sustainability of digital IPE and to offer insights and references for universities seeking to deepen their practices of digital ideological and political education.*

Keywords: *Universities; Ideological and Political Education; Digital Development; Dilemmas; Strategies*

1. Introduction

The advancement of ideological and political education in universities has always been guided by the Marxist theoretical system, with the goal of nurturing students who possess both strong ideological literacy and comprehensive personal qualities. Through classroom instruction, social practice, cultural immersion, and multidimensional educational activities, universities seek to cultivate well-rounded talents equipped with firm ideals and beliefs, sound moral character, and the ability to assume societal responsibilities. As China enters the digital age, new technologies such as big data, virtual reality, artificial intelligence, and cloud computing are reshaping not only the landscape of industrial development but also the nature and logic of educational work. In this context, ideological and political education is expected to meet higher standards of modernity, systematicity, and precision.

Digitalization has become an inevitable trend in the development of higher education. Its influence on IPE is multifaceted. At the conceptual level, digitalization enriches the theories and methods of ideological education. At the operational level, it strengthens the practicality, interactivity, and timeliness of teaching. At the systemic level, it promotes the modernization of governance in higher education. The deep integration of digital technologies into IPE is no longer a supplementary enhancement but a transformative force that reshapes the goals, contents, methods, and mechanisms of ideological education. Yet, despite the strong national push for educational digitalization and the emergence of numerous promising practices, the current development of IPE digitalization in universities exhibits uneven progress. While some leading institutions have established advanced digital learning platforms, intelligent resource libraries, VR-based experiential IPE spaces, and AI-driven personalized learning systems, many other institutions still struggle with insufficient digital resources, outdated technological methods, and weak cybersecurity systems[1]. These issues seriously hinder the sustainable and high-quality development of digital IPE.

Therefore, this research extends beyond a simple descriptive analysis. It aims to present a comprehensive and in-depth discussion of the current dilemmas in university IPE digitalization and propose coherent strategies to support long-term, sustainable growth. This paper argues that digital IPE

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is not merely a technical issue but involves philosophical, pedagogical, and systemic considerations. It requires coordinated efforts from universities, government agencies, enterprises, and society to ensure that digital transformation truly enhances the quality of ideological education and fosters the growth of morally upright and highly competent young talents.

2. Overview of the Digitalization of University Ideological and Political Education

Digitalization is not merely the conversion of information into digital formats[2]; rather, it represents a comprehensive transformation of educational processes, structures, relationships, and values. In the digital age, higher education shifts from traditional, closed, teacher-centered models to open, interactive, learner-centered models supported by intelligent technologies. The digitalization of IPE reflects this transformation and functions as an essential avenue for strengthening ideological guidance and value shaping among university students.

From a functional perspective, digital IPE emphasizes more efficient transmission of knowledge, stronger emotional resonance, higher levels of interactivity, and enhanced educational precision. The integration of digital resources enriches teaching content and allows historical events, classical theories, and moral narratives to be presented more vividly and attractively. The development of digital platforms allows students to break free from the constraints of time and space, enabling them to engage in continuous learning and thought exploration. The application of big data analytics assists educators in gaining insights into students' ideological dynamics and learning behaviors. This type of intelligent monitoring does not aim at controlling students' thoughts, but at providing more precise support, helping teachers identify individual differences, and improving the responsiveness and effectiveness of IPE.

From a pedagogical perspective, digitalization shifts IPE from one-way knowledge transmission to interactive learning. Technologies such as virtual reality allow students to enter simulated historical environments, enhancing emotional experience and value identification. Artificial intelligence technologies simulate conversational environments, allowing students to explore real-world ethical dilemmas, form personal judgments, and experience moral reasoning. Compared with traditional lecturing, these methods exert greater motivational influence on students and help them develop deeper understandings of theoretical concepts.

In summary, the digitalization of university IPE is not only a necessary response to the development of the digital era but also a fundamental path to enhancing the scientific and modernized levels of ideological and political education. Although digitalization cannot replace human-centered guidance, it can significantly enhance the precision, appeal, and influence of IPE. Ensuring its healthy and sustainable development is, therefore, an essential mission for universities today.

3. Dilemmas in the Digital Development of University Ideological and Political Education

Although the digitalization of IPE has become a nationwide trend, its actual implementation varies widely among institutions. The discrepancies stem not only from technological and financial differences but also from conceptual, structural, and institutional constraints. This section analyzes the major dilemmas faced by universities in the process of digitalizing ideological and political education.

3.1 Insufficient Digital Educational Resources

One of the most significant problems is the lack of sufficient, high-quality digital educational resources[3]. Digital IPE relies heavily on comprehensive resource systems, including digital textbooks, multimedia courseware, VR scenarios, databases, and systematic learning platforms. However, many universities still lack the professional capacity to develop these resources.

Many institutions have limited funding for digital resource construction. Even when they procure electronic textbooks or multimedia courseware, these materials often lack originality or depth. They tend to be simplistic and repetitive, failing to stimulate meaningful learning experiences. Some institutions attempt to develop their own resources but lack technical personnel with interdisciplinary expertise, resulting in product quality that does not meet educational needs.

Another pressing issue is the imbalance in regional development. Universities in developed regions benefit from advanced technological infrastructure, ample financial support, and partnerships with leading technology firms; in contrast, institutions in less-developed regions—particularly in the central

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and western parts of the country—often struggle to provide even the most basic digital resources. These institutions may face challenges such as unstable network connectivity, an insufficient number of computer laboratories, or a lack of specialized personnel dedicated to digital infrastructure development. This regional "digital divide" not only results in unequal access to educational opportunities but also hinders the realization of the national strategic objective to achieve balanced and high-quality education across the country.

Furthermore, resource sharing mechanisms remain underdeveloped. Although some national platforms have begun integrating IPE resources, many digital materials are still locked within individual institutions, making it difficult for other universities to access them. The absence of standardization in digital resource construction also results in varied formats, quality, and usability. As a result, even when universities attempt to share their materials, technological incompatibility often hampers meaningful collaboration.

Therefore, insufficient digital educational resources represent a foundational obstacle that hinders the further digitalization of university ideological and political education.

3.2 Outdated Digital Educational Technologies and Methods

Even when digital resources exist, many universities fail to use them effectively due to outdated technological methods and traditional pedagogical mindsets. Digitalization requires not only the presence of technological tools but also innovative approaches to teaching.

Currently, many IPE classrooms still rely heavily on traditional lecturing methods[4]. Teachers may project slides or play short videos, but the overall class structure remains unchanged. Students are still positioned as passive recipients of information, and the educational environment lacks interactivity. Technologies such as VR and AR may be introduced but are used merely as visual supplements rather than core components of learning activities. Teachers may show VR videos but fail to integrate them into structured learning tasks, resulting in limited learning value.

Many teachers also lack sufficient technological literacy. They may not be familiar with virtual simulation systems, intelligent learning platforms, or data analytics tools. Some teachers express concerns about the reliability, complexity, or potential risks of new technologies and therefore prefer traditional methods, even though digital approaches could enhance student engagement. The lack of professional development opportunities further exacerbates this issue, as many teachers have not received systematic training in digital instructional design, multimedia storytelling, or AI-assisted teaching.

Additionally, the digitalization of IPE often fails to extend into practical learning activities. Ideological and political education emphasizes practice through community engagement, volunteer work, and real-world problem solving. However, digital tools that could enhance these activities are rarely used. For example, mobile apps could be employed to document student reflections, track progress, or present interactive tasks, yet such tools are often absent. This limits the continuity between classroom learning and real-world moral experience and reduces the overall coherence of IPE.

In summary, the lack of innovative digital teaching methods greatly restricts the educational impact of digital resources and undermines the potential benefits of digital transformation.

3.3 Weak Cybersecurity in Digital Education

Cybersecurity is an essential part of digital IPE development, as ideological education is closely tied to political stability, information security, and value guidance. However, many universities face significant challenges in developing robust cybersecurity systems.

Many digital platforms used for IPE are outdated and vulnerable to cyberattacks. Their servers may not be regularly maintained, and their underlying software may lack timely security patches. Databases containing sensitive student information are often insufficiently protected. This exposes universities to risks such as unauthorized data access, personal information leaks, or even malicious tampering with learning records. Once such incidents occur, they can severely undermine trust in digital education systems.

At the same time, the increasing use of artificial intelligence in IPE introduces new security and ethical concerns. AI-based learning systems may recommend biased or inappropriate content if their training data includes ideological deviations. AI language models may inadvertently generate politically

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sensitive or misleading information. If not properly guided and supervised, AI could expose students to harmful content or distort their ideological understanding. These risks highlight the need for strict content management and algorithmic governance.

In addition, many teachers and students lack adequate cybersecurity awareness. Teachers may not know how to handle data securely or detect phishing attempts. Students may not recognize the importance of protecting personal information or practicing responsible online behavior. Without systematic security training, both groups are vulnerable to digital risks that could compromise the entire educational environment.

Thus, weak cybersecurity systems and ideological safety risks represent significant obstacles to the safe and sustainable development of digital IPE.

4. Strategies for Promoting the Digital Development of Ideological and Political Education in Universities

Promoting the digital development of ideological and political education in universities requires a clear understanding of the challenges that currently hinder progress and a systematic approach to strengthening digital resource construction, improving technological methods, and enhancing cybersecurity and governance. Digital transformation is not a purely technological undertaking, but a comprehensive reform that affects educational philosophy, teaching design, institutional coordination, and the cultivation of digital literacy among teachers and students. Therefore, strategies must be holistic, sustainable, and guided by both theoretical insights and practical needs.

4.1 Enrich Digital Resources Based on Educational Needs

Universities must strengthen digital resource development and ensure that materials correspond to students ’disciplinary characteristics, educational levels, and learning habits[5]. Digital resources should not be generic or superficial; instead, they should deeply embed ideological elements into professional knowledge structures. To achieve meaningful digital transformation, universities must go beyond merely converting existing materials into electronic formats. They must instead create a systematic, diversified, and deeply integrated collection of digital resources that embeds ideological elements in disciplinary content. This process begins with recognizing that different majors have unique intellectual frameworks, application contexts, and ethical dilemmas. Effective ideological and political education should not artificially separate professional knowledge from value-oriented guidance, but instead integrate them organically. For example, in engineering disciplines, digital resources should highlight themes such as scientific integrity, national industrial security, and the ethical boundaries of technological innovation. Students studying economics should gain access to digital materials demonstrating the relationship between national development strategies and economic reform, while students in literature and humanities should encounter resources that deepen their understanding of cultural confidence, moral reasoning, and historical consciousness.

To enrich these resources, universities must invest in professional resource development teams that combine expertise in ideological theories, educational technology, and multimedia content creation. Unlike traditional teams that may rely solely on political science faculty, digital resource development requires interdisciplinary collaboration among technologists, designers, historians, and pedagogical experts. Universities should establish long-term cooperation with technology companies, cultural institutions, publishing houses, and research centers to enhance the richness and authenticity of digital content. Professional digital production teams should create high-quality interactive videos, virtual reality learning experiences, narrative-based simulations, and thematic micro-courses that present ideological content in engaging and emotionally resonant ways. Furthermore, universities should establish resource platforms that enable students to access materials anytime and anywhere, creating a continuous digital ecosystem that supports reflective learning both inside and outside the classroom.

For example, in computer science programs, the rapid pace of technological innovation and the broad scope of practical applications create unique requirements for IPE. Students must understand not only technical content but also the ethical, political, and societal implications of technology. Universities can create integrated digital resources that connect professional knowledge with ideological education, such as digital case libraries featuring examples of technological innovation, cybersecurity challenges, AI ethics, and national strategic achievements in high-performance computing.

School–enterprise collaboration can also play a crucial role. Enterprises can provide real-world

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technological scenarios, ethical dilemmas, and industry cases that help students understand the moral and social responsibilities of professionals. Universities can integrate these materials into digital practice packages that guide students through reflective learning activities. This approach improves both professional competence and ideological awareness.

By enriching digital resources in these ways, universities can strengthen the effectiveness of ideological and political education while supporting students'long-term academic and career development.

4.2 Innovate Digital Educational Technologies and Methods

Digitalization is not simply a matter of adopting new tools; it requires rethinking the logic of teaching and learning. Traditional one-way dissemination of knowledge cannot fully meet the complex cognitive and emotional needs of contemporary students, who are accustomed to highly interactive online environments. Therefore, teachers must develop new teaching approaches that integrate digital technologies deeply rather than superficially[6]. Virtual reality, for instance, should not be used merely as a visual ornament but as a medium for immersive learning in which students are emotionally and intellectually engaged. When students virtually walk through revolutionary memorial sites, simulate conversations with historical figures, or take part in digitally reconstructed scientific research missions, they experience ideological concepts more vividly than through traditional lectures alone. These experiential environments help students develop stronger emotional resonance and deepen their internalization of values such as patriotism, collectivism, perseverance, and scientific dedication.

Artificial intelligence also plays a transformative role. AI-based teaching assistants can accompany students throughout their learning process, providing round-the-clock guidance and generating individualized recommendations based on their learning pace, comprehension level, and ideological tendencies. Through natural language processing, AI can engage students in reflective conversations, prompting them to think critically about ethical issues, social concerns, and value conflicts. AI-generated personalized learning paths help teachers manage diverse student needs more effectively and make teaching outcomes more measurable and observable. However, technological innovation must be accompanied by thoughtful instructional design. Teachers need to understand how to embed digital tools into learning activities, design reflective prompts, facilitate online discussions, and ensure that technoogical use remains pedagogically meaningful.

Another important aspect of technological innovation is the development of blended learning environments. By combining online digital learning with offline classroom discussions, universities can create a comprehensive instructional model that leverages the strengths of both modalities. Online platforms can provide theoretical materials, multimedia resources, and self-paced tasks, while in-person sessions can focus on critical dialogue, moral reasoning, and scenario-based problem solving. Data collected from online learning activities can help teachers understand students’ progress and adjust instruction accordingly. This data-driven model represents a significant improvement in teaching precision and pedagogical responsiveness.

4.3 Strengthen Cybersecurity and Build a Comprehensive Protection System

To ensure the secure and responsible development of Digital Ideological and Political Education (IPE), higher education institutions must construct a robust cybersecurity framework and establish a comprehensive governance mechanism to safeguard the secure and efficient operation of digital IPE initiatives.

A secure digital environment requires both technical infrastructure and institutional governance. Universities must invest in modern firewalls, encryption technologies, intrusion detection systems, and backup solutions. Regular security audits should identify vulnerabilities, and emergency response systems should be established to handle incidents promptly.

At the conceptual level, universities must train teachers and students in digital safety and ethical awareness. Teachers need to understand how to handle data responsibly and conduct ideological content reviews for AI-generated materials. Students should learn about digital citizenship and responsible online behavior.

At the institutional level, universities must establish comprehensive governance structures that include policies on data management, algorithmic transparency, and ethical use of technology. These policies should align with national cybersecurity laws and ideological safety requirements.

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By integrating technical, educational, and managerial measures, universities can create a trustworthy digital environment that supports the healthy development of ideological and political education.

5. Conclusion

In conclusion, the digitalization of ideological and political education in universities is both a challenge and an opportunity. While many institutions still face difficulties such as insufficient digital resources, outdated teaching methods, and inadequate cybersecurity systems, digitalization remains an essential path toward the modernization and improvement of ideological education. Universities must adopt comprehensive and forward-looking strategies to enrich digital resources, innovate digital teaching methods, and build secure digital environments. Only through coordinated efforts can universities enhance the appeal, precision, and effectiveness of ideological and political education, cultivate students with strong moral ideals and a sense of national responsibility, and ultimately contribute to the advancement of higher education in the digital age.

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2025 Jiangsu College Students' Innovation and Entrepreneurship Training Program: A Study on the Nurturing and Educating Effects of the Jianghai Region on Migrant Ethnic Minority Children. Project No.: S202513993009

References

[1] Li Zhuohang. Dilemmas and Solutions for the Digital Development of University IPE [J]. University, 2024(27): 7–10.
[2] Zhang Jinheng, Zhang Kai. Analysis of Dilemmas and Strategies for Digital IPE Development [J]. University, 2025(33): 53–56.
[3] Liu Lingling, Wang Yunyun. Digital Development Paths of University IPE in the Internet Context [J]. Intelligence, 2024(09): 9–12.
[4] Gui Bai'an. Integration of IPE and Aesthetic Education under Digitalization [J]. University, 2024(32): 7–11.
[5] Luo Lin, Wu Dan. Digital Transformation of University IPE in the Intelligent Era [J]. Information Theory and Practice, 2025, 48(S1): 69–74.
[6] He Miao, Kang Xin. Strategies for Digital Development of IPE from the Perspective of New Quality Productivity [J]. Journal of Huainan Vocational and Technical College, 2025, 25(01): 99–102.