A Study on the Integration of "Smart Safety" and "Precision Ideological and Political Education" in Higher Education under the Context of Digital and Intelligent Empowerment

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Abstract: With the application of digital technologies such as big data and artificial intelligence in university governance, the construction of a smart security system and the deep integration of ideological and political education have become inevitable. University security work bears the important responsibility of maintaining campus safety and stability, preventing various safety hazards, and protecting the personal safety and property of faculty and students. Targeted ideological and political education, centered on the fundamental task of fostering virtue and nurturing talent, focuses on students' ideological motivations and developmental needs; the two share a high degree of consistency and overlap in their educational objectives. While the application of digital and intelligent technologies can break down information barriers in traditional teaching, it also presents entirely new challenges to the integrated education system in higher education. This paper analyzes the practical challenges facing the integrated development of these two areas in the context of digital and intelligent empowerment and offers preliminary explorations, with the aim of providing insights for enhancing the effectiveness of campus safety management and improving the precision of ideological and political work in higher education.
***Keywords*:** digital and intelligent empowerment; smart campus safety; precision ideological and political education; integrated education

1. Introduction

Currently, as universities undergo digital transformation, both their internal governance objectives and the core logic of education have undergone profound changes in tandem with the evolution of the external technological environment. At present, campus governance in Chinese universities faces increasingly complex and severe internal and external challenges. Under traditional management models, safety hazard inspections have limited coverage and risk warnings are often delayed; furthermore, ideological and political education suffers from content that is disconnected from students' realities and lacks precision. There is an urgent need to promote the deep integration of smart safety systems with targeted ideological and political education. As centers for cultivating high-tech talent characterized by both high density and high risk, traditional approaches to safety management and ideological and political education are no longer adequate to meet the needs of contemporary university development. In recent years, universities have increasingly adopted smart campus initiatives to establish multi-modal smart safety systems, enabling the collection of multi-dimensional student data and providing a crucial foundation for predicting changes in students' psychological states and identifying potential risks. Meanwhile, student-related data accumulated through targeted ideological and political education can also inform risk assessments conducted by smart safety systems. However, at present, smart safety and precision ideological and political education in most universities fall under the purview of two separate departments, operating independently without forming an effective collaborative education mechanism. Consequently, the benefits of digital and intelligent integration have not yet been fully realized. Against this backdrop, clarifying the intrinsic logic of "smart safety" and "precision ideological and political education," breaking down the barriers to their integration, and exploring integrated educational approaches represent major challenges currently facing universities as they advance the transformation of digital governance and moral education.

2. Definition of Core Concepts

2.1 Smart Security

Smart Security leverages digital intelligent technologies such as big data, artificial intelligence, the Internet of Things, cloud computing, and mobile internet. It employs comprehensive sensing, intelligent analysis, precise insights, and rapid response to achieve intelligent monitoring of campus physical spaces, cyberspace, and the personal safety and property of faculty and students. Smart Security aims to build a more proactive and precise campus security system, creating a safe,

stable, and harmonious environment for students and faculty to learn, work, and live. Its key lies in using digital technologies to overcome the temporal and spatial limitations of traditional security management and information barriers, thereby enhancing the intelligence and complexity of security management. This shifts the focus from passive response to proactive prevention and from post-incident handling to early warning, modernizing the school's security governance capabilities.

2.2 Precision Ideological and Political Education

Precision Ideological and Political Education refers to the practice in which higher education institutions, supported by intelligent technologies, capture, analyze, and mine multidimensional data—such as students' thought patterns, behavioral characteristics, and developmental needs—to conduct a precise analysis of their value orientations and developmental requirements. This enables educators to accurately tailor educational content, select appropriate teaching methods, achieve precise control over the duration of the educational process, and deliver targeted, "drip-irrigation" style instruction, thereby enhancing the effectiveness and appeal of ideological and political education in higher education. The key to Precision Ideological and Political Education lies in using digital methods to address the issues of "blanket coverage," content homogenization, and the difficulty in evaluating effectiveness. Through precise analysis of students, targeted outreach, and tailored interventions, the approach brings education closer to students' real lives, truly resonates with them, and guides them toward a correct worldview, outlook on life, and values.

3. Practical Challenges Faced by "Smart Security" and "Precision Ideological and Political Education" in Higher Education Institutions Due to Digital and Intelligent Empowerment

3.1 Risks Related to Data Security and Privacy Protection

With the advancement of digitalization and intelligent technologies, the implementation of "smart security" in higher education institutions inevitably generates massive amounts of personal, behavioral, and location data. "Precision ideological and political education" is also built upon the collection and analysis of students' ideological trends, online comments, and academic data. This data often contains sensitive personal information; once leaked, it is vulnerable to misuse. The improper use or hacking of such data not only infringes upon the privacy of faculty and students but also leads to secondary risks such as identity theft and damage to reputation. At the same time, some universities face issues such as inadequate data management systems, insufficient technical support, and unclear definitions regarding data usage. This poses a serious challenge to data security in the online environment. How to leverage big data to enhance the effectiveness of intelligent security management, achieve the practical results of targeted ideological and political education, and ensure the legality of data collection and usage as well as the security of storage has become a critical issue in the current development of university information systems.

3.2 Data Silos and Inconsistent Standards

Currently, various departments within universities (such as the Security Department, Student Affairs Office, Academic Affairs Office, and Network Center) often establish information systems based on their own specific needs. However, these systems differ in terms of data collection standards, storage formats, and interface specifications, leading to the phenomenon of "data silos." Achieving efficient information exchange and network integration between "Smart Security" and "Precision Ideological and Political Education" presents certain challenges. This results in data resources not being utilized effectively, making it difficult to comprehensively and accurately reflect students' safety status and ideological trends, thereby impacting the educational effectiveness of "Smart Security." Furthermore, the absence of unified data standards and sharing mechanisms makes it extremely difficult to integrate, analyze, and optimize service efficiency. Conversely, establishing uniform standards and specifications could hinder intelligent development. Therefore, to achieve a deep integration of "Smart Safety" and "Precision Ideological and Political Education," it is essential to break down information barriers and establish unified data standards and a shared platform.

4. Building a Pathway for Integrated Education Combining "Smart Safety" and "Precision Ideological and Political Education" in Higher Education Institutions Against the Background of Digital and Intelligent Empowerment

4.1 Establishing a Framework of Objectives for Integrated Education

To establish a framework of objectives for integrated education, we must first clarify that the overarching goal is to

cultivate, within a specific timeframe, a new generation of students who possess strong safety and self-protection capabilities and hold firm convictions regarding ideals, values, and moral character. The specific objectives are as follows: First, the objective of cultivating safety literacy involves providing students with a systematic body of safety knowledge through integrated education, thereby enhancing their safety awareness and capabilities so they can effectively address various safety risks (including cybersecurity, personal safety, and psychological safety). Second, the ideological and political education objective, which focuses on student guidance, aims to help students firmly establish correct views on the nation, the rule of law, and security; strengthen the "Four Consciousnesses"; uphold the "Four Confidences"; consciously fulfill their social responsibilities; and foster a sense of mission.

4.2 Designing an Integrated Educational Content Framework

To effectively combine the concepts of "Smart Safety" and "Precision Ideological and Political Education," the content framework must be centered on this integration. On the one hand, ideological and political elements should be incorporated into "Smart Safety" curriculum content; for example, by emphasizing the importance of cyberspace sovereignty, strengthening the development of cyber ethics and the rule of law, and fostering students' sense of patriotism and respect for the law. In education regarding personal and property safety, social responsibility should be integrated with lessons on honesty; through initiatives such as life education and psychological counseling, provide students with psychological safety education to help them cherish life and maintain a positive mindset. On the other hand, safety concepts should be integrated into "Precision Ideological and Political Education." For instance, values such as "harmony," "rule of law," and "patriotism"—which are closely linked to national security—should be woven throughout the core socialist value system. By explaining the "Comprehensive National Security Outlook" to students, their understanding of national security can be enhanced.

4.3 Establishing an Integrated Education Platform System

The greatest advantage of digital and intelligent technologies is their ability to leverage various digital media to break down information barriers and effectively integrate teaching resources. The construction of an integrated education platform must be carried out at both on-campus and off-campus levels, ensuring complementarity between online and offline scenarios. First, to address the issue of information silos between various internal university systems, existing online platforms must be effectively integrated. Currently, smart safety platforms in universities are independently developed by units such as the Department of National Defense, the Student Affairs Office, and the Mental Health Education Center, and are generally operated by the School of Marxism and Party Committee departments. Data between these platforms lacks interoperability, and standards are not unified. This not only increases the burden on faculty and students but also prevents the integration of the educational information chain. Based on this, leveraging the university's internal big data platform, we can establish data interfaces between the smart safety management system and the ideological and political education system. This will create a unified database encompassing both safety conditions and ideological and political education needs, enabling real-time integration of safety risk data with teaching requirements. For example, when the platform detects signs of security risks—such as abnormal spending records or prolonged delays in alarm responses—it can automatically forward this information to relevant counselors and instructors for ideological and political education courses. This enables instructors to provide targeted ideological guidance and safety training, thereby enhancing the effectiveness of safety interventions and improving the precision of ideological development.

Second, online platforms will expand the scope of teaching scenarios, providing teachers and students with comprehensive learning interfaces that can be accessed anytime, anywhere. Leveraging various channels such as school official accounts, WeCom, and dedicated mini-programs, we will develop comprehensive educational modules that combine entertainment and education. Examples include: national security awareness quizzes with challenge levels, "Snap and Report" features for campus safety hazards, and "Confessional Tree" functions for mental health support. By integrating safety education with ideological education, students will be able to overcome the tedium of traditional, one-way ideological indoctrination through everyday campus services. Simultaneously, leveraging digital technologies such as VR and AR, we create immersive safety experience spaces to simulate scenarios involving telecommunications fraud, fire evacuation, detecting online information scams. By combining ideological guidance with experiential scenarios, students can complete safety response training in highly realistic, authentic settings. This not only deepens their intuitive understanding of various safety risks but also allows them to naturally absorb ideological and political guidance through the experience, thereby addressing the disconnect in traditional safety education where students "understand the theory but cannot apply it to real-life situations."

Finally, we will integrate high-quality educational resources from schools, businesses, and communities to establish a collaborative off-campus education platform. We can collaborate with local cyber security, public security, and national security agencies to jointly establish a comprehensive training and practice base. This initiative will focus on incorporating

real-world security cases and specialized resources related to campus safety, while offering themed internship courses. For example, students could visit anti-fraud centers to hear police officers explain actual fraud cases, and receive education on identity verification, cybersecurity maintenance, and personal information protection, thereby strengthening their sense of social responsibility and awareness of the rule of law. Schools can also partner with local high-tech enterprises to conduct practical research on new security challenges in the digital and intelligent era, and involve students in research related to data security and the ethics of artificial intelligence. Through practical training, students can deepen their understanding of emerging security issues and enhance their relevant security knowledge and skills.

5. Conclusion

In summary, digital and intelligent technologies offer new opportunities for smart campus safety and targeted ideological and political education in higher education institutions. However, they also present practical challenges such as ensuring data security and overcoming difficulties in resource interconnectivity. Promoting the deep integration of these two areas is an inevitable choice for universities to navigate the wave of digital transformation, fulfill their fundamental mission of fostering virtue and nurturing talent, and establish a comprehensive safety education model. The integration of these two areas is not merely a functional merger but involves a systematic restructuring across three dimensions: objectives, content, and platforms, with safety assurance at its core. The goal of this transformation is to shift from a reactive to a proactive approach, and from a broad-based to a targeted strategy. In the future, as digital and intelligent technologies continue to evolve, universities will face new challenges and requirements during the integration process. They must continuously optimize integration approaches and adjust educational strategies. While safeguarding the data security and privacy of faculty and students, they must balance the use of technological tools with humanistic care, break down data barriers across industries, and ensure that the integration remains aligned with the development of higher education. This will enable the cultivation of new talent, contribute to national revitalization, solidify the foundation of security, and strengthen conceptual guidance.

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