

Practice and Reflection on the Construction of Safe Universities in the New Era

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Abstract: This paper deeply deconstructs the multi-dimensional logic of the construction of safe universities in the new era and reveals its essential characteristics as a collaborative evolution system of "technology - system - culture". Research indicates that the traditional security governance paradigm has exposed structural flaws when addressing digital risks, subject heterogeneity, and value conflicts. It is necessary to reconstruct the interactive relationship among risk perception, technological empowerment, and subject participation through a "resilient governance framework". The article proposes an optimization path with "digital twin - ethical embedding - super-domain collaboration" as the three fulcrums of technology - system - value, and emphasizes that the ultimate goal of security governance should go beyond risk prevention and control and turn to the dynamic balance of the development rights of teachers and students, the right to academic freedom and the right to public security. This research integrates complexity science, governance theory and educational philosophy from an interdisciplinary perspective, providing theoretical innovation and practical paradigms for the modernization of security governance in higher education.

Keywords: Construction of Safe Universities; Safety Governance; Higher Education; Hyperdomain Collaboration

1. Introduction

In the complex landscape where risk societies and digital civilizations interweave, higher education institutions are evolving from "ivory towers" to open social systems, and their security governance is confronted with multiple challenges such as the spread of non-traditional risks, disputes over

technological ethics, and conflicts in subject values. The traditional security model centered on "physical walls" and "administrative control" has gradually fallen into the predicament of "governance internalization" due to its neglect of the social nature of risk generation, the double-edged nature of technology application, and the initiative of subject participation. The construction of safe universities in the new era urgently needs to break through the linear thinking dominated by instrumental rationality and shift towards a governance paradigm transformation based on complexity science as the methodological foundation and the "human-oriented security concept" as the value orientation. This paper deconstructs the cognitive limitations of the traditional paradigm and reconstructs the collaborative mechanism of technological empowerment, institutional innovation and cultural cultivation, aiming to provide a solution with both theoretical depth and practical tension for the security governance of higher education.

2. The Theoretical Connotation and Contemporary Value of the Construction of Safe Universities in the New Era

2.1 Theoretical Origin and Concept Deconstruction

The theoretical connotation and contemporary value of the construction of safe universities in the new era, as well as their theoretical origin and concept deconstruction, need to be deeply analyzed in a complex context where multiple disciplines interweave. From the perspective of security studies, the construction of a safe university is by no means a single-dimensional physical space security guarantee, but a composite security system that encompasses multiple elements such as personal safety, property safety, information security, and psychological safety. Its theoretical foundation is deeply embedded in the framework of the

risk society theory, aiming to address the interweaving and superposition of uncertainties and potential threats in modern society^[1]. Sociological theory provides the interpretation dimensions of social structure and social interaction for the construction of safe universities. As a micro-social unit, the internal interpersonal relationship network, group behavior pattern and interaction mechanism with the external social environment of universities all have a profound impact on the construction of safe campuses. The embedding and functional mechanisms of elements such as trust, norms and networks in the theory of social capital in campus security governance have become the key entry points for understanding the social foundation of building a safe university. Educational theory endows the construction of safe universities with a profound meaning of education orientation, emphasizing that safety is not only the goal of university governance but also an important part of the educational process. Through safety education, safety culture construction and other means, the cultivation of safety awareness and ability is integrated into the entire process of talent cultivation, achieving the organic unity of safety and education. At the conceptual deconstruction level, compared with the traditional concept of "campus security", the "Safe University" has achieved a paradigm leap from passive defense to active governance, from single control to multi-party co-governance, and from local guarantee to systematic construction. Its connotation not only includes the prevention and resolution of explicit security risks, but also covers the insight and guidance of implicit security issues. Such as the ideological security on campus and the shaping of the cyber security ecosystem, the reconstruction of this concept marks the profound transformation of the security governance concept in colleges and universities and the innovative development of the theoretical system.

2.2 Background of the Times and Current Demands

Under the triple superimposed context of the accelerated process of globalization, the deep penetration of the technological revolution and the transformation of the social structure, the construction of safe universities in the new era is facing unprecedented complex challenges

and practical demands. From an international perspective, the spillover effects of geopolitical conflicts and the normalization of global public health crises have made it necessary for universities, as the core fields of cross-border talent flow and knowledge production, to confront non-traditional security threats such as cross-border risk transmission and ideological infiltration in their security governance. The traditional prevention and control model based on physical boundaries as barriers has been difficult to adapt to the "borderless" feature of risk diffusion in the era of globalization^[2]. At the domestic level, the advancement of the popularization process of higher education and the improvement of campus openness have led to the diversification of internal interest subjects and the complication of interest demands within universities. The expectations of teachers and students for security guarantees have extended from basic personal safety to higher-level demands such as psychological safety and development security. This upgrading of the demand structure has forced the safety governance of colleges and universities to transform from "passive guarantee" to "active empowerment". From a technical perspective, the extensive application of emerging technologies such as artificial intelligence, big data, and the Internet of Things not only provides intelligent monitoring and precise early warning capabilities for the construction of safe universities but also gives rise to new types of security risks such as data privacy leakage, algorithmic discrimination, and cyber violence. The "double-edged sword" effect of technological tools requires universities to achieve a dynamic balance between technological rationality and value rationality in safety governance. Furthermore, the transformation of the principal contradiction in society and the strategic goal of modernizing the national governance system and governance capacity have endowed the construction of safe universities with the era mission of "safety - development - education" as a trinity. It not only needs to respond to the micro-demands of campus safety governance, but also needs to provide fundamental guarantees for the high-quality development of higher education through institutional innovation, mechanism optimization and cultural cultivation. Build a solid security line for cultivating new era individuals capable of

shouldering the great responsibility of national rejuvenation. The interweaving of this era background and practical demands jointly constitutes the logical starting point and practical field for the construction of safe universities in the new era.

2.3 Construction Goals and Value Orientation

The goal system and value orientation of building a safe university in the new era need to be dynamically calibrated within the three-dimensional coordinate system of national security strategy, the development laws of higher education and the growth needs of individuals. From a macro-strategic perspective, its core objective lies in building a campus security governance ecosystem that is compatible with the country's overall security outlook. Through institutional design, technological empowerment, and cultural infiltration, it deeply empowers national security elements such as political security, ideological security, and cyber security into the university governance system. Form a two-way interactive mechanism of "top-down" policy transmission and "bottom-up" practical feedback to ensure that universities become the frontline and stabilizer for safeguarding national security^[3]. At the meso level, the construction of safe universities needs to be in harmony with the high-quality development goals of higher education. It is necessary to promote the improvement of university governance capabilities through the modernization of safety governance. By innovating risk prevention and control mechanisms, improving emergency management systems, and exploring cross-departmental collaborative governance models, security guarantees should be provided for the fulfillment of core functions such as teaching and research, talent cultivation, and social services. Realize the "dual-wheel drive" of safety governance and educational development. At the micro level, its value orientation should return to the educational essence of "teacher-student centered", transform safety needs into the endogenous driving force for individual development, and cultivate the safety literacy and risk response ability of teachers and students by building a full-cycle safety service system covering life safety education, mental health support, and

rights protection mechanisms. Transform safety from external constraints into individual conscious value choices and behavioral norms. Furthermore, the construction of a safe university needs to go beyond the utopian pursuit of "zero risk", seek a dynamic balance in the dialectical relationship between risk and development, and be guided by the concept of resilient governance. It should shift safety governance from "risk avoidance" to "risk adaptation", ensuring bottom-line safety while stimulating the innovative vitality of the campus. Ultimately, a value community of "safety as the foundation, development as the priority, and education as the essence" will be formed, providing a practical model with exemplary significance for the modernization of higher education and national governance.

3. Practical Paths and Typical Cases of Safe University Construction in the New Era

3.1 Institutional Innovation and Mechanism Construction

The institutional innovation and mechanism construction for the construction of safe universities in the new era need to break through the single linear logic of traditional security governance and shift towards a governance paradigm transformation that is systematic, collaborative and dynamic. At the institutional level, colleges and universities need to establish a modern security governance system with risk prevention as the core, the rule of law as the foundation, and flexible adjustment as the feature. Through measures such as revising campus security management regulations, improving emergency response plans for unexpected incidents, and formulating norms for data security and privacy protection, security governance should be brought onto the track of the rule of law. Meanwhile, the "fault-tolerant and error-correction" mechanism and the "dynamic evaluation" system are introduced, embedding a flexible adjustment space within the rigid institutional framework to cope with the rapid evolution of uncertain risks^[4]. In terms of mechanism construction, cross-departmental collaborative governance has become a key breakthrough. Universities have established a four-party linkage mechanism of "university - local - police - enterprise" to break through the traditional governance barriers of

compartment-specific divisions, achieving information sharing, resource integration and action coordination. For instance, in the comprehensive governance of public security around the campus, they have jointly built a "smart security circle" with the public security department. Integrate enterprise technical resources to build a risk monitoring platform, and rely on community grid management to extend the reach of governance, forming a governance network of "full coverage and multi-party co-governance". In addition, the intelligent upgrade of risk assessment and early warning mechanisms has also become a practical focus. Universities have introduced technologies such as big data analysis, machine learning, and complex network modeling to build a risk perception system based on multi-source data fusion, achieving real-time monitoring, dynamic assessment, and trend prediction of campus safety hazards. For instance, the "Campus Safety Index Model" developed by a certain university By integrating public opinion data, facility operation data, teacher and student behavior data, etc., a visual risk heat map is generated to provide a scientific basis for precise intervention. These practical explorations of institutional innovation and mechanism construction have not only reshaped the underlying logic of university security governance, but also achieved breakthrough progress in the timeliness, accuracy and coordination of risk response, providing replicable and scalable institutional models and technical paths for the construction of safe universities in the new era

3.2 Technology Empowerment and Smart Governance

The deep integration of technological empowerment and intelligent governance is reshaping the underlying logic and practical paradigm of building safe universities in the new era, promoting a paradigm shift in campus security governance from "experience-driven" to "data-driven" and from "post-event response" to "forward-looking prediction". At the technical architecture level, universities achieve dual-domain linkage between the physical space and the digital space by building an "end-edge-cloud" collaborative intelligent security system: deploying Internet of Things sensors, smart cameras and biometric terminals

at the front end to collect multi-dimensional data such as people, vehicles, objects and the environment on campus in real time; Edge computing nodes conduct local preprocessing of data, filter redundant information and extract key features; The cloud-based big data platform relies on distributed storage and parallel computing technologies to conduct in-depth mining and correlation analysis of massive heterogeneous data, forming a closed-loop chain of "perception - transmission - processing - decision-making"^[5]. For instance, the "Campus Security Situation Awareness System" developed by a certain university integrates data sources such as video surveillance, access control records, and WiFi probes, and employs spatio-temporal trajectory analysis and abnormal behavior detection algorithms to achieve intelligent identification and proactive early warning of risks such as suspicious individuals, illegal intrusions, and group gatherings. At the governance scenario level, the introduction of blockchain technology provides a new solution for campus data security and privacy protection. Through distributed ledgers and smart contract mechanisms, it realizes the transparency and immutability of processes such as security incident reporting, emergency resource allocation, and responsibility traceability, effectively solving the predicament of information asymmetry and lack of trust in traditional governance. In addition, virtual simulation and digital twin technologies have also demonstrated great potential in safety education. Universities have built immersive safety drill platforms to simulate extreme scenarios such as fires, earthquakes, and terrorist attacks, allowing teachers and students to experience the risk response process in a virtual environment and enhancing their emergency response capabilities and psychological resilience. These technology-enabled practical explorations not only reconstruct the technological ecosystem of campus security governance, but also give rise to new possibilities in terms of governance efficiency, subject participation and value reshaping, injecting strong impetus into the construction of smart campuses and the high-quality development of higher education.

3.3 Cultural Cultivation and Subject Participation

The deep integration of cultural cultivation and subject participation constitutes the value core and driving force source of the construction of safe universities in the new era. Its essence is to achieve a paradigm elevation of campus safety governance from "institutional constraints" to "cultural awareness" through the internalization of safety culture and the collaboration of multiple subjects. At the level of cultural cultivation, colleges and universities need to break through the one-way indoctrination model of traditional safety education and construct a three-in-one safety culture dissemination system of "cognition - emotion - behavior": Through multiple carriers such as offering general safety courses, holding theme cultural festivals, and creating safety-themed artworks, safety knowledge is embedded in subject teaching and campus cultural activities, enabling teachers and students to form an identification with the value of safety imperceptibly. At the same time, by leveraging technologies such as virtual reality (VR) and augmented reality (AR), immersive safety experience scenarios are created, transforming abstract safety concepts into concrete emotional resonances. For instance, a certain university uses VR technology to simulate a chemical leakage accident in a laboratory, enabling teachers and students to deepen their understanding of safety operation procedures through "experiencing" risks. At the level of subject participation, colleges and universities need to build a multi-party co-governance pattern of "Party and government leadership - teachers and students as the main body - social collaboration". Through mechanisms such as establishing student safety self-governing organizations, setting up "safety observer" positions, and implementing "random photography of safety hazards", the subject awareness of teachers and students as the "first responsible persons" for safety governance can be stimulated. In addition, social forces such as parent committees, community volunteers, and alumni enterprises have been introduced to form a safety support network that links "home, school, society, and enterprises". For instance, a certain university, in collaboration with the surrounding community, launched the "Anti-Fraud Publicity Enters Campus" campaign. Through the joint efforts of the police and the school as well as the

co-construction of the school and enterprises, a safety protection network covering both inside and outside the campus and connecting online and offline has been established. This two-way interaction between cultural cultivation and subject participation not only shapes a safety culture ecosystem with the characteristics of universities, but also achieves breakthroughs in the aspects of governance subjectivity, value consensus and action coordination, injecting continuous vitality and creativity into the construction of safe universities.

4. Reflections and Optimization Strategies for the Construction of Safe Universities in the New Era

4.1 Analysis of Practical Predicaments and Contradictions

The construction of safe universities in the new era is confronted with multiple predicaments and deep-seated contradictions in the practical advancement. The essence lies in the imbalance of tension between technological rationality and humanistic value, governance effectiveness and individual rights, risk prevention and control and innovation vitality. The "double-edged sword" effect of technology empowerment is particularly prominent: On the one hand, the in-depth application of technologies such as artificial intelligence and big data has enhanced the accuracy of risk early warning and the timeliness of emergency response. However, on the other hand, problems such as algorithmic bias, data monopoly and privacy infringement have also emerged. For instance, some universities overly rely on facial recognition systems for attendance management, which has strengthened order control. However, it has aroused the resistance of teachers and students to "technological monitoring" and their concerns about individual freedom, exposing the squeeze of instrumental rationality on value rationality in technological governance. The contradiction between institutional rigidity and governance flexibility is equally acute: Although standardized and procedural safety management systems ensure the standardization of governance, they are difficult to adapt to the complexity and dynamic characteristics of campus safety incidents. For instance, during the epidemic prevention and control period, the

"one-size-fits-all" closed management measures effectively contained the spread of the virus, but due to the neglect of the differentiated needs and psychological endurance of teachers and students, secondary conflicts occurred frequently. It reflects the failure of institutional design in risk assessment and interest balance. Furthermore, the asymmetry dilemma between resource input and efficiency output exacerbates governance internal friction: Some universities, in pursuit of the "zero-risk" goal, blindly increase the costs of security equipment and labor. However, due to the lack of systematic planning and performance evaluation mechanisms, they fall into a vicious cycle of "high investment - low efficiency". For instance, some campus security systems, due to data silos and lagging algorithms, fail to effectively integrate multi-source information and instead become a symbol of formalistic "digital political achievements". The interweaving of these practical predicaments essentially stems from the cognitive limitations of the traditional security governance paradigm regarding the complexity of risks, the diversity of subjects, and the diversity of values, which urgently need to be addressed through paradigm transformation and mechanism innovation.

4.2 Theoretical Reflection and Paradigm Breakthrough

The theoretical reflection on the construction of safe universities in the new era needs to confront the cognitive limitations and interpretative power crisis of the traditional security governance paradigm. The core lies in breaking through the single linear logic of "risk control - order maintenance" and turning to the complex governance paradigm of "risk co-governance - value coexistence". The predicament of the current theoretical framework is mainly manifested in three tensions: First, the separation between instrumental rationality and value rationality has led to safety governance becoming a "mechanical combination" of technological accumulation and institutional superposition. For instance, over-reliance on technical monitoring systems while neglecting the subjective participation of teachers and students has alienated safety practices into the discipline of individual freedom rather than the

protection of life values. Secondly, the binary opposition between structuralism and constructivism makes it difficult for theories to explain the dynamic generation mechanism of campus security risks. The traditional structuralist perspective attributes risks to the objective existence of external threats, but ignores the shaping effect of subjective factors such as the behavioral patterns of teachers and students and cultural cognition on the evolution of risks. Thirdly, the imbalance between security and development has led to governance goals deviating from the essence of education. Some universities regard "absolute security" as the ultimate pursuit, but due to excessive compression of academic freedom and innovation space, they have instead given rise to the accumulation of "hidden risks", such as self-censorship of academic disputes and the formalization of student club activities. The key to paradigm breakthrough lies in constructing a trinity theoretical model of "risk - governance - value": based on complexity science as the methodological foundation, concepts such as "resilient governance" and "adaptive governance" are introduced. Campus security is regarded as a dynamically evolving ecosystem, emphasizing the co-evolution of risk perception, learning adaptation and value reconstruction. Taking the "human-oriented security concept" as the value orientation, shift security governance from "controlling people" to "developing people", and achieve the endogenous transformation of security governance through paths such as cultivating security literacy, activating subject participation, and building trust relationships. Taking "collaborative governance" as the practical framework, we break the single governance model dominated by administration, and build a "safety community" where multiple subjects including the government, universities, society, and teachers and students jointly govern. This maximizes governance efficiency through risk sharing and value sharing. This paradigm shift is not only a transcendence of traditional security theories, but also a profound response to the essence of modernization in higher education.

4.3 Future Outlook and Optimization Paths

The future picture of building a safe university in the new era needs to unfold in the interweaving of technological iteration, value

reconstruction and governance innovation. Its optimization path needs to achieve a systematic leap with "resilience - wisdom - symbiosis" as the core dimension. From a technical perspective, with breakthroughs in quantum computing, edge intelligence, and metaverse technologies, campus security governance will enter an intelligent evolution stage of "all-domain perception - deep cognition - autonomous decision-making". Universities need to build "digital twin campuses" and "security knowledge graphs", and through real-time mapping of the dynamic correlation between the physical space and the digital space, To achieve a paradigm shift from "passive response" to "active immunity" in risks, for instance, by using digital twin technology to simulate the chain reaction path of laboratory explosion accidents, data support can be provided for the optimization of emergency plans. In terms of the value dimension, safety governance needs to shift from "risk avoidance" to "value empowerment". By establishing a three-dimensional assessment system of "safety - development - happiness", safety literacy can be incorporated into the quality standards for talent cultivation, and safety culture can be integrated into the core spirit of the campus. For instance, a "Safety leadership" course module can be developed to cultivate the critical thinking and ethical decision-making abilities of teachers and students in complex risk situations. In terms of governance dimensions, the collaborative governance mechanism needs to deepen towards "super-domain collaboration" and "micro-particle governance". On the one hand, a cross-school and cross-regional "security governance alliance chain" should be constructed through blockchain technology to achieve the sharing of risk information and the dynamic allocation of emergency resources. On the other hand, by using federated learning and privacy computing technologies, precise profiling and risk early warning of individual behaviors can be achieved on the premise of safeguarding data sovereignty. For example, a certain university, in collaboration with the community, has developed a "camcampus - Community Security Collaboration Platform". Through federated learning, it integrates student consumption data and community security data to conduct early intervention for potential psychological crises. In addition, the

institutional design needs to incorporate a dual-track mechanism of "dynamic fault tolerance" and "ethical constraints", which not only reserves space for trial and error in innovative practices but also regulates the abuse of technology through algorithm audits and ethics committees. This multi-dimensional optimization path will drive a qualitative change in the construction of safe universities from "safety guarantee" to "safety empowerment", providing a practical model with exemplary significance for the modernization of higher education and the building of a community with a shared future for mankind..

5. Conclusions

The construction of safe universities in the new era is a core proposition that is both strategic and fundamental in the process of modernization of higher education. This paper, through the dual deconstruction of theoretical reflection and practical paths, reveals the deep-seated contradictions of the traditional paradigm in the three dimensions of risk cognition, technological ethics and subject value, and proposes a paradigm reconstruction scheme with "resilient governance" as the core: At the technical level, it is necessary to build a "Digital twin campus" and a "safety knowledge graph" to achieve a paradigm shift in risk perception from "experience-driven" to "data-driven". At the institutional level, administrative barriers need to be broken through the "super-domain collaboration" mechanism, and data sovereignty and sharing efficiency should be guaranteed by federated learning and privacy computing technologies. At the value level, the cultivation of safety literacy should be integrated into the entire chain of talent cultivation, and the safety cognition and responsibility ethics of teachers and students should be reshaped through cultural infiltration. In the future, the construction of safe universities needs to continuously explore within the value triangle of "safety - development - innovation", respond to the dual challenges of technological revolution and social transformation with dynamic and balanced governance wisdom, and provide a practical model with exemplary significance for the high-quality development of higher education and the modernization of national governance.

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