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Digital Empowerment and Ethical Reconstruction: The Substrate of Cooperative Action in Private Higher Education in the Digital Era



Abstract: - Currently, the entire society is experiencing systematic "digital disruption", and comprehensive digital transformation across all areas is the inevitable path to future development. As the foundation of people's livelihood, education, and higher education in particular, plays an important role in digital transformation and educational reform. Higher education is not only the driving force of digital transformation but also the main force of educational reform. When facing the impact of the digital wave, it should take the initiative to shoulder the responsibility of digital transformation and innovation, and actively lead educational reform. As an important part of higher education, private higher education also shoulders the important responsibility of promoting digital transformation. It is an important direction to promote social systematic digital transformation through the digital transformation of higher education, and it is a practical requirement to promote the digital transformation and upgrading of cooperation between private higher education and digital technology. With the deep integration of digital technology and cooperation between private higher education, the digital space is gradually taking shape, and ethical concerns are beginning to emerge. Through philosophical reflection and ethical examination of these ethical concerns in the digital space, it is found that these ethical concerns mainly stem from the absence of the ethical dimension of digital technology. Therefore, this study starts from two logical dimensions of digital empowerment and ethical reconstruction, based on the analysis of the internal interconnection between technology and ethics, and proposes that in promoting the digital transformation of cooperation between private higher education, we should not only fully utilize digital empowerment, but also reconstruct the action path of digital ethics.

Keywords: Private Higher Education(PHE), Cooperative Action(CA), Digital Empowerment(DE), Ethical Concerns(EC), Reconstructing Ethics(RC).

I. RAISING THE QUESTION

Currently, the internet, big data, artificial intelligence, cloud computing, etc., have become the mainstream vocabulary of today's society, indicating that our society is facing a major reshuffle of modern information technology. Digitization is changing the production methods, lifestyles, and behavioral patterns in various fields of society. The educational transformation driven by digital technology is playing an ensemble of digital transformation and educational transformation. [1] With the advent of the educational informationization 2.0 era, digitalization has become an important force to promote the reform and innovation of higher education. In line with the development of information technology, accelerating the digital transformation of higher education, promoting the digital reform and innovation of higher education, and integrating the new generation of information technologies such as cloud computing, big data, the Internet of Things, blockchain, and artificial intelligence with the higher education system, that is, using digital technology to empower the application, sharing, and innovation of higher education, is not only the trend of the times, but also the consensus of international education. It is also a new topic and mission entrusted to us by the times, as well as a major issue facing mankind today. Under the impact of digitalization, taking educational digitalization as an important breakthrough to open up a new track for educational development in the digital era and shape a new advantage for educational development is the inevitable way for education to move towards the future. [2]. In the face of the educational transformation driven by digital technology and the shaping of a new educational ecology, China is actively acting. The evolution of the theme of the first World Digital Education Conference, "Digital Transformation and the Future of Education," to this year's theme, "Digital Education: Application, Sharing, Innovation," also reflects China's responsibility and determination on the path of educational digitization transformation and development.

Higher education plays a leading role in building a strong educational country and plays a guiding and leading role in the construction of a strong educational country. [3] In the face of the educational transformation and innovation in the digital era, the actors of higher education should, under the guidance of the action plan of

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"actively advancing the layout, responding effectively to changes, and striving to open up new opportunities", [4] answer the important proposition of how to achieve the digital transformation of higher education. As an important part of higher education, private higher education is an indispensable support for the play of the leading role of higher education. Using "data" to empower and empower the cooperation of private higher education, promoting the digital transformation of private higher education cooperation is also an important topic given to us by the times. In this context, the actors of private higher education should take advantage of the situation, actively embrace digital transformation, fully seize new development opportunities, actively explore new cooperation models, take advantage of the dividend of the digital era, and use digital technology means such as information technology, artificial intelligence, and big data to build a digital cooperation network for private higher education, actively promoting the digital transformation of private higher education cooperation. Using digital empowerment to continuously improve the intelligence, diversity, and personalization of cooperative actions, seeking comprehensive, systematic, diverse, global, common, and sustainable cooperation and sharing among actors, and building a higher education community will help broaden the reform and development path of private higher education.

The openness, interactivity, and sharing nature of digital technology undoubtedly provide greater development space for private higher education, which is inherently flexible in its approach. However, in the new mode of interaction enabled by digital technology, there are ethical concerns such as data security and data fairness. As digital technology and private higher education cooperate and integrate deeply, ethical issues arise. At the same time, in the digital space, the boundaries between real and virtual spaces are blurred, and the concepts of presence and absence are merging. Everything exists in an interconnected and mutually aware scenario. This is exactly what Giddens meant when he said, "The 'passing' of time and the 'vanishing' of space, the mingling of presence and absence." [5] This interaction and entanglement of virtuality and reality pose higher demands on ethical values, giving rise to new modes of thinking and "driving the upgrading of ethical frameworks." [6] Strengthening the construction of digital ethics requires the guarantee of digital system development. China's "Data Security Law," passed in 2021, clearly states that "the conduct of data processing activities and the research and development of new data technologies shall be conducive to promoting economic and social development, enhancing people's well-being, and conforming to social ethics and morality."

Therefore, based on the perspective of digital enablement and ethical reconstruction, this paper analyzes the digital infrastructure and ethical matrix of cooperation in private higher education in the digital era, explores how to achieve temporal and spatial breakthroughs in cooperation in private higher education through digital enablement, and how to eliminate ethical concerns about digital technology in the process of digital transformation of cooperation in private higher education. It tries to construct a network of cooperation in private higher education with full-time, interactive, interconnected perception, and moral ethics, with digital platforms as the base for cooperation in private higher education, digital technology as the support, digital means as the assistance, and ethics as the core. This network promotes cooperation in all elements, aspects, businesses, processes, fields, and flows of private higher education, and builds a community of higher education.

II. SPATIAL AND TEMPORAL BREAKTHROUGH AND ETHICAL WORRIES IN THE COOPERATIVE ACTIONS OF PRIVATE HIGHER EDUCATION IN THE DIGITAL AGE

With the arrival of the era of educational informatization 2.0, profound changes have taken place in the cooperation methods, content, and conditions of private higher education cooperation actions. The application of digital technologies such as cloud computing, big data, and artificial intelligence has broadened the scope of private higher education cooperation actions, realizing the deep integration of the real and virtual spaces of cooperation actions. This integration not only breaks through the centrality and boundary of traditional cooperation models, but also endows private higher education cooperation actions with decentralization and openness. The advanced digital transformation places private higher education cooperation actions in the digital space. In the digital space, digitalization is the main driving force of cooperation actions. The openness and convenience of digitalization enable cooperation actions to achieve temporal and spatial breakthroughs. However, the anonymity and virtuality of digitalization also bring ethical concerns to cooperation actions.

A. *Spatial and Temporal Breakthroughs in Digital Empowerment of Private Higher Education Collaboration*

With the rapid development of information technology, the wave of digitization has swept across all industries and sectors of the world, "human beings have lived in the 'frame' of technology described by Heidegger, and technology is changing our way of existence in all directions," [7] affecting all areas of social life.

As an important part of the field of higher education, private higher education has naturally been baptized by the wave of digital transformation. In the baptism of the digital wave, new cooperation spaces have emerged for private higher education cooperation actions. This transformation driven by digital technology has created unprecedented convenience and possibilities for private higher education cooperation actions. Driven by digital technology, private higher education cooperation actions can break through traditional time and space restrictions, and form more flexible and diverse cooperation models.

1) *The rapid development of information technology enables private higher education cooperation to break through geographical restrictions:* Traditional cooperation models are limited by the physical location and geographical distribution of the participating entities, but digital technology can break through the temporal and spatial limitations of traditional cooperation and overcome information barriers. Through digital platforms, private higher education actors can establish contacts with partners around the world, obtain information in real time, grasp data dynamics, create broader cooperation spaces for actors, and promote the innovation and development of cooperation models.

2) *Digital technology provides more flexible scheduling for private higher education cooperation:* Traditional higher education cooperation often requires both parties to negotiate and determine specific time and location. However, the use of digital technology allows both parties to flexibly arrange cooperation time based on their respective needs and actual situation, with stronger environmental adaptability and ease of organization. Action subjects can connect and interact through digital platforms, communicate in real time, and follow up on cooperation progress. Digital technology eliminates time distance, which is "eliminating the absolute 'present' of time difference and achieving simultaneousness without difference or continuation"[8], manifesting as the nihilism of time and location.

3) *Digital technology also provides more diverse cooperation methods for private higher education cooperation actions:* In addition to traditional face-to-face communication and cooperation, actors can also carry out real-time interaction and resource sharing through online collaboration tools, cloud computing platforms, and other methods. These emerging cooperation methods not only improve cooperation efficiency but also reduce cooperation costs, enabling more private higher education actors to participate in cooperation actions.

B. *Ethical Concerns about the Cooperation of Digital Empowerment in Private Higher Education*

In the process of digital enabling private higher education cooperation, although technological advancements have brought unprecedented convenience and opportunities to educational cooperation, we must also face the hidden ethical concerns. These concerns involve issues such as digital fairness, educational fairness, digital security, privacy risks under the digital divide, as well as digital literacy, digital dependency, information security, privacy protection, academic integrity, etc. in the use of digital technology. These issues require us to deeply consider and discuss. While these issues of digital divide and digital use risks appear to be technical problems of digital technology itself at the surface level, from the implicit logic perspective, they stem from the absence of the ethical dimension of digital technology. In short, there is a deep correlation between the technical presentation of technological development and ethical values. [9] From the ethical dimension of technology, digital transformation will inevitably bring new ethical issues, such as the ethical risks of information explosion, algorithmic bias (algorithmic discrimination), digital divide, data fairness, digital dependency, information security, and personal privacy in the use and misuse of digital technologies such as big data, artificial intelligence, cloud computing, and intelligent robots. Therefore, we need to deeply understand the ethical concerns behind digital technology.

1) *The potential risks of digital identity itself:* The continuous innovation, development and application of digital technology have brought human production and life into the ecosystem of digital space. In the digital space, the existence of actors is in the form of "data person", which is the "subject" form shaped by digital technology. [10] The identity label of "data person" is attached to the physical identity, but also separated from the physical identity, and with the change of the subject's behavioral purpose and situational state, different digital identity labels are derived. [11] The anonymity, virtuality, multiplicity, diversity, and variability of digital identity hide ethical risks such as digital identity theft or abuse of identity data. In digital space, people can have multiple identities, and their identities can be switched autonomously according to different application scenarios. For instance, when you are using social media, you are a user; when you are using an e-commerce platform, you are a consumer; when you are using an online learning platform, you are a student. And every time you act out a role, data is left behind. The aggregation and cross-use of these data make a subject's identity more three-dimensional and rich on one hand, and more complicated and blurred on the other hand. The inherent ethical

risks of digital identity and the possible ethical risks of digital identity activities have triggered the escalation of ethical risks in digital space.

2) *Data security and privacy risks*: In the digital space, all actions are presented in digital form, which is characterized as "data tracking". Data tracking provides convenience for data tracing, but also brings security risks such as information leakage, data misuse, and privacy invasion. For example, personal information on social media, consumption records on e-commerce platforms, geographic location, etc. If these information are leaked, it not only involves personal privacy issues, but also may provide opportunities for illegal acts by lawbreakers. Similarly, in the cooperation of digital enabling private higher education, a large amount of personal information and educational data will be collected, stored, and processed. If these information cannot be effectively protected and managed, they may face the risk of leakage and misuse.

3) *The issue of information fairness under the digital divide*: Although digital technology enables educational resources to be shared across geographical and temporal boundaries, the digital divide between different regions and actors is still evident. The fairness and accessibility of technology are influenced by technology access, digital literacy differences, and technological ethics. On the one hand, it is manifested as information asymmetry and unfairness issues caused by differences in technology application; on the other hand, it arises from the absence of ethical dimensions in technology development, triggering trust risks.

III. DIGITAL EMPOWERMENT AND ETHICAL RECONSTRUCTION: RESHAPE THE COOPERATIVE ACTION OF PRIVATE HIGHER EDUCATION

The advent of the digital era has brought new opportunities and challenges to the cooperation of private higher education. With the help of digital technology, the cooperation of private higher education can be brought into the digital scene. By constructing a cooperation action network through digital technology and realizing point-to-point communication and interaction, it can break the temporal and spatial constraints of traditional cooperation actions, break through the information barriers among cooperation actors, and make the communication relationship among cooperation actors free from temporal and spatial constraints, so that the relationship among cooperation actors is more three-dimensional. In the digital space, numbers are the main driving force, and all elements of action are presented in digital form, building an interconnected network of actions. However, with the deep integration of digital technology and higher education, ethical concerns behind the anonymity and virtuality of numbers have begun to emerge. Moreover, as a human-computer interaction space that connects the real and virtual worlds and enables interconnected perception, the digital space itself carries ethical values. Therefore, in the context of the digital era, private higher education cooperation actions need to fully utilize digital capabilities while fully considering ethical values.

A. *Digital Empowerment: Break the Temporal and Spatial Constraints of Private Higher Education Cooperation Actions*

In the "Unlimited Possibilities - World Report on the Digital Development of Higher Education" (2023), digitalization of higher education is divided into three stages of transformation, transition, and intelligence.[12] These three stages are not isolated but interconnected, permeable, integrated, and gradually deepening processes of upgrading and advancement. Currently, the digitalization of higher education in China is at a critical stage of transitioning from the 1.0 era of educational digital transformation to the 2.0 era. In the 1.0 era, our main focus was on the introduction and application of technology, such as online teaching and digital resources. However, with the continuous development of technology, we gradually realized that the mere introduction of technology cannot completely solve the problems of higher education. Therefore, in the 2.0 era, we need to emphasize more on the transformation and innovation of the higher education system.

With the deepening of digital technology in all areas of society, it has driven unprecedented changes in various fields and placed social interaction in a digital space scenario. This digital technology revolution has not only reshaped people's lifestyles, but also had a profound impact on social and economic development, changes in higher education, and innovation in cooperation methods.[13] Driven by the digital technology revolution, private higher education institutions are actively embracing digital transformation, actively exploring the path of digital transformation, strengthening digital infrastructure construction, improving digital literacy, seeking to break the temporal and spatial limitations of cooperative actions, and actively promoting educational equity and resource sharing. The main body of higher education plays a leading and guiding role in digital transformation. As an important part of the main body of higher education, the actions of private higher education institutions in

digital transformation will also inject new energy into the digital transformation and development of the entire society.

1) *The cooperation between private higher education institutions can be realized beyond the limitations of time and space through digital empowerment:* In traditional private higher education cooperation, resource sharing among actors faces many difficulties due to geographical location, resource conditions, time differences, and other factors. However, the emergence of digital technology has broken the limitations of geographical space and time boundaries, providing a broader space for cooperation and enabling the resolution of this issue. By building a digital platform, actors can be placed in a "remote coexistence" field, with the deep dissolution of time and space boundaries. [14] Resources can be accessed and output in real time, and systematic resource co-construction and sharing can be achieved among actors, enabling access to more enriched and diversified higher education resources.

2) *Promoting the innovative development of cooperation in private higher education based on digital empowerment:* Riven by the wave of digitization, cooperation in private higher education also needs continuous innovation and reform. By utilizing digital technology, actors can develop more education products and services that meet the needs of the times and satisfy the diverse needs of actors. At the same time, digital technology can also provide more precise data analysis and decision support for actors, helping them better understand the dynamics and direction of cooperation, and formulate more scientific and cutting-edge cooperation strategies.

3) *Using digitalization to provide more flexible and diversified cooperation methods:* We can carry out cooperation actions through digital collaboration platforms, such as academic exchanges and cooperation through "cloud research". Digital technology not only enriches our cooperation methods, but also changes our way of thinking. It makes us start to think across boundaries in terms of thinking, promoting the breakthrough of boundaries in cognitive thinking.

Digital enablement of private higher education cooperation is not only a demand of the times, but also a path for the development of private higher education towards the future. We should fully utilize the opportunities brought by digital technology, actively explore the implementation plan for digital technology to enable private higher education cooperation, promote the systematic transformation of private higher education digitization, break the spatial and temporal restrictions of cooperation actions in all aspects, promote the sharing of higher education resources, and promote the deep development of private higher education cooperation.

B. Ethical Reconstruction: Reshaping the Moral Responsibilities of Cooperative Actions in Private Higher Education

With the rapid development of technology, the application of digital technology in private higher education is becoming increasingly widespread, bringing unprecedented opportunities and challenges to cooperation. Digital enablement not only provides private higher education institutions with more efficient and convenient cooperation methods, but also urgently requires ethical reconstruction. Digital enablement enables private higher education institutions to transcend geographical restrictions and achieve optimal allocation and sharing of resources. Through the application of cloud computing, big data and other technologies, educational institutions can more accurately understand students' learning needs and provide them with personalized learning plans. In addition, digital technology also helps to strengthen communication and collaboration between educational institutions, promote the integration and sharing of educational resources, and improve the overall quality of education. However, the widespread application of digital technology has also brought a series of ethical issues.

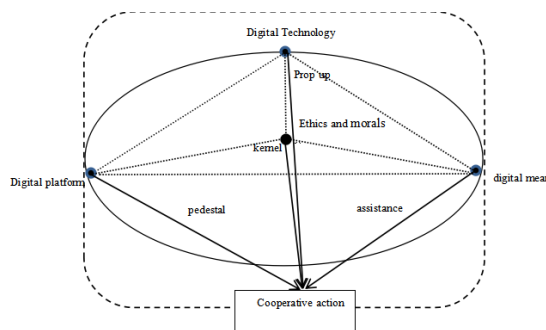
The digital space is an interactive space where real space and virtual space can connect and communicate with each other, and where the Internet of Things can perceive human-computer interactions.[15] "In the interface practice of human-technology interaction, technology appears as a tool, but beneath the apparent instrumentality of technology, there are signs of human beings being instrumentalized, which forces us to re-examine the instrumentality of technology and avoid being instrumentalized by humans themselves." [16] To re-examine the instrumental theory of technology requires reflection on it and reassertion of the ethical dimension of technology. In the process of digital transformation, it is necessary to reconstruct the ethical order of digital technology, establish an ethical matrix for digital empowerment, and continuously promote the upgrading of the ethical framework. In addition, openness and decentralization are prominent features of the digital space, and numbers are the main driving force of the digital space. There are ethical concerns behind the openness and anonymity of digital spaces. In the digital transformation of higher education, it is necessary to actively cultivate people's digital literacy, as emphasized in the United Nations Education Transformation Summit's special report "Transforming Education, Transforming the World: Learning to Sustainably Coexist", "Education must equip

people with critical thinking when they are exposed to information and digital technology, and cultivate their ability to resist misinformation..."[17] Only by reconstructing the ethical matrix of digital empowerment and upgrading the existing ethical system can we adapt to the needs of the digital era.

Ethical reconstruction is an important task faced by the cooperation of private higher education. In the process of ethical reconstruction, we first need to clarify moral responsibility. While enjoying the convenience brought by digital technology, the actors of private higher education must undertake the moral responsibility of protecting the privacy and data security of the actors. This requires us to strictly comply with relevant laws and regulations in cooperative actions to ensure the legitimate, compliant and reasonable use of data. At the same time, we also need to establish a sound data governance mechanism, clarify the access and utilization permissions of data, and prevent data abuse and leakage. Specifically: First, strengthen the construction of laws and regulations, formulate and improve relevant laws, regulations and policy measures, and provide strong legal guarantees for digital enabling cooperation in private higher education; second, establish and improve data protection mechanisms, strengthen data encryption technology, establish norms for data sharing and use, and other measures to enhance technical prevention capabilities, use advanced information technology means to strengthen the protection and management of educational data and personal information; third, establish a fair and transparent education resource allocation mechanism. With the support of digital technology, private higher education actors should break geographical and identity restrictions to ensure data fairness; fourth, strengthen the supervision and evaluation of digital technology. The government and society should strengthen the supervision and evaluation of educational institutions' use of digital technology to ensure that their behavior complies with ethical norms and laws and regulations. At the same time, we also need to establish a corresponding evaluation system to evaluate and feedback the application effects of digital technology in the cooperation of private higher education, so as to continuously improve and optimize; fifth, strengthen ethical and moral education, guide educators and educated people to establish correct ethical concepts and values, and consciously abide by academic norms and moral standards; sixth, strengthen international cooperation and exchanges, learn from international advanced experiences and practices, and jointly respond to ethical challenges in digital enabling cooperation in private higher education.

C. Build a Cooperative Action Network for Private Higher Education with Interconnected Perception of Digital Technology and Ethical Values

In the cooperation of private higher education, it is urgent for us to consider how to eliminate ethical risks such as data privacy, data security, data rights, data access and utilization, data fairness, and the legitimate, compliant, and reasonable use of data. We need to address the digital divide and digital usage risks in the process of digital transformation, which are not just issues of technological tools, but also issues of the inherent interconnection between technology and ethics. To bridge and eliminate the digital divide and digital usage risks, we need to reflect on the ethical dimension of technology and address them through a combination of rules and technology. That is to say, strengthening the construction of digital ethics not only requires "solving problems through technology, but also needs to start from the relationship between technology and ethics".[18] Here, "ethics and morality do not play a role in correcting technicism",[19] but serve as the core of digital technology, playing a fundamental and nuclear role in digital cooperation. Based on this, we propose to construct a network of private higher education cooperation actions with digital platforms as the base, digital technology as the support, digital means as assistance, and ethics and morality as the core (as shown in Figure 1).



Source of chart: Made by the author.

Figure 1: Formation Mechanism of Cooperative Action Network in Private Higher Education

- 1) *Perfect the digital platform and build a solid foundation*: The construction of digital platform is the basic link of digital transformation, and it is a new type of infrastructure in the digital era. The digital platform builds the foundation of the cooperative action network for private higher education, and it is the carrier for the actors to carry out new digital cooperative actions. Accelerating the construction of digital platforms, improving the security and reliability of infrastructure, building digital education platforms of different types and levels, and realizing the diversification and integration of digital education platforms are conducive to providing flexible, sustainable, and secure guarantees for the cooperative actions of private higher education.
- 2) *Strengthen support and optimize digital technology*: From a technological perspective, digital technology is an important support for the cooperation action network of private higher education. Optimizing digital technology can provide efficient, convenient, and secure technical support for the cooperation action of private higher education, ensuring the data security and privacy of cooperation actors. This is conducive to promoting the sharing of resources and communication among cooperation subjects, and achieving fairness and sustainability in cooperation actions.
- 3) *Strengthen support and upgrade digital methods*: Digital methods are the auxiliary force of the cooperative action network of private higher education, and are indispensable dynamic elements for digitally enabling cooperative actions in private higher education. Improving the ability of digital processing and transformation, constructing a good feedback mechanism, and enhancing the adaptability, self-organization, flexibility, and perception of the Internet of Things of technology can make the cooperative actions more efficient and convenient.
- 4) *Strengthen the core and shape the ethical matrix*: The ethics of technology has a priority over technology itself, meaning that technology itself carries value orientations or preferences rather than being neutral.[20] In other words, the design and development of technology implicitly or explicitly embody certain value presuppositions of the designer.[21] The loaded values of technology make us have to reflect from the perspective of ethics. "Technology appealing to ethics is the intrinsic requirement of technology itself" [22], Reflecting on the transformation and development of technology based on the dimension of technology ethics can make "technology for the better" possible, and is also the source of meaning for the development and application of technology. Technical ethics can be seen as the "Ariadne's thread" to resolve ethical concerns in digital space. With the deepening development of a new generation of information technologies such as cloud computing, big data, the Internet of Things, blockchain, and artificial intelligence, a systemic "digital disruption" has been triggered throughout society. The social transformation driven by digital technology has shaped a "digital space" where the physical space, social space, and virtual space interact and coexist in a fusion. In the context of the "digital space," technical ethical risks exhibit unprecedented complexity and uncertainty. Therefore, in private higher education cooperation, we must attach great importance to the reconstruction of ethics and morality, using ethical reshaping as the core to build a digital trust system and ensure the legitimacy, fairness, and sustainability of cooperative actions.

IV CONCLUSION

The research found that digital enablement and ethical reconstruction are two indispensable dimensions of private higher education cooperation. Only with the support of digital technology can we better optimize the allocation and sharing of educational resources; and only under the guidance of ethical reconstruction can we ensure the sustainable development of education. Therefore, we need to continuously explore and innovate, improve digital platforms, optimize digital technology, upgrade digital means, and fully empower private higher education cooperation in the digital era. The foundation of digital enablement is algorithm, ensuring its fairness, non-discriminatory nature, and breaking the information cocoon, to ensure the fairness, legality, and morality of digital enablement cooperation. Therefore, while fully improving digital enablement, we also need to adhere to the concept of "technology for good", be alert to the transgression of digital technology on ethics and morality, reconstruct the ethical framework, continuously improve ethical thinking, construct the ethical matrix of data enablement, and consolidate the ethical value of digital enablement. This study mainly explores the new matrix of private higher education cooperation in the digital era and forms a new thinking mode based on basic understanding. It analyzes the temporal and spatial extension and breakthrough of digital enablement in cooperation actions of private higher education, as well as the ethical concerns in the process of formation and development in digital space. It also proposes the action construction path to reshape the cooperation actions of private higher education in the digital era. This study is a basic research, hoping that in the future, it can form a dialogue between theory and practice on this basis.

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REFERENCES

- [1] Feng Tingting, Liu Dejian, Huang Lulu, et al. Digital Education: Application, Sharing, and Innovation—— 2024 World Digital Education Conference Review. *Chinese Journal of Electrified Education*, 2024, (03): 20-36.
- [2] Promoting digitalization of higher education and shaping new advantages for educational development - Introduction to "Infinite Possibilities: World Higher Education Digital Development Report (2023)". *China Educational Technology*, 2024, 30 (01): 3-5.
- [3] Wu Guilong. Giving Full Play to the Leading Role of Higher Education in Building a Powerful Country in Education. *Journal of Ideological Education Research*, 2023, (07): 97-100.
- [4] Tao Lei, Yang Xin. The Construction of a Powerful Country in Education Driven by Digitalization: Opportunities, Challenges and Pathways. *China E-Learning Journal*, 2024, (03): 12-19.
- [5] Giddens, Anthony. *The Constitution of Society: Outline of the Theory of Structuration*. Translated by Li Kang and Li Meng. Beijing: Life, Reading and New Knowledge Sanlian Bookstore, 1998.5:223.
- [6] Yan Hongxiu. The Ethical Basis of Data Empowerment. *Social Sciences*, 2022, (01): 136-142.
- [7] Guo Zhiye, Wen Chengwei. The Three Internal Ethical Dimensions of Technology. *Studies in Dialectics of Nature*, 2011, 27 (05): 41-46.
- [8] Xiao Yanxiong and Guo Yan. "The Rise of Spatial Journalism and the Spatial Construction of Digital News - Illustrated with the Works Nominated for the 2022 Sigma Awards". *Press Circle*, 2023, (04): 21-33+46.
- [9] Yan Hongxiu. The Ethical Basis of Data Empowerment. *Social Sciences*, 2022, (01): 136-142.
- [10] Li Yongzhi. Opening a New Track for Education Development through Digitalization. *Education Reference*, 2023, (05): 5-6.
- [11] Zhou Weidong. Digital Citizenship in the Metaverse Era: Identity Dilemmas, Practical Logic, and Theoretical Verification. *E-Government*, 2022, (10): 62-74.
- [12] Secretariat of the Global MOOC and Online Education Alliance. *Infinite Possibilities: Report on the Digital Development of Global Higher Education*. Beijing: Higher Education Press, 2023.11: Preface 4-5.
- [13] Bayu Aditya, Ridi Ferdiana, Sri Suning Kusumawardani. *Digital Transformation in Higher Education: A Barrier Framework*. Discover the world's research, May 2021.
- [14] Wu Fei, Fu Zhengke. "Digital Commonality": A New Hypothesis for Understanding Social Interaction in the Digital Era. *Journal of Journalism and Communication Research*, 2023, 30 (06): 22-35+126-127.
- [15] Hou Wenjun, Bu Yaohua, Liu Conglin. Virtual Digital Humans: The Technical Medium of Interpersonal Interaction in the Metaverse. *Media*, 2023, (04): 25-27+29.
- [16] Yan Hongxiu. Why Philosophy Can Decode Technology: The Future Direction of the Philosophy of Technology. *Guangming Daily*, December 14, 2020.
- [17] The UN Transforming Education Summit. Transforming education to transform the world: Learning to live together sustainably. 2022.09.19.
- [18] Yan Hongxiu. Why Philosophy Can Decode Technology: The Future Direction of the Philosophy of Technology. *Xinhua Digest*, 2021(6):39-41.
- [19] Zhang Kangzhi. *Ethical Reconstruction of Social Governance [M]*. China Social Sciences Press, August 1, 2020:34.
- [20] Duan Weiwen. The Value Load of Technology and Ethical Reflection. *Studies in Dialectics of Nature*, 2000, (08): 30-33+54.
- [21] Zhao Liang, Liu Caiwei. The ethical approach to algorithm decision optimization: moral threshold, responsibility boundary, and technology embedding. *Journal of Dalian University of Technology (Social Science Edition)*, 2024, 5: 115-122.
- [22] Guo Zhiye, Wen Chengwei. The Three Internal Ethical Dimensions of Technology. *Studies in Dialectics of Nature*, 2011, 27(05): 41-46.