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Research on the Value Implications and Practical Path of Digital Technology Enabling Civic and Political Parenting in Private Colleges and Universities in the New Era

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Abstract: In the context of the new era, private universities, as an important part of the higher education system, shoulder the historical mission of cultivating application-oriented talents. Facing the real challenges such as the diversified structure of students and the high mobility of teaching staff, the traditional ideological and political education model is gradually showing its weakness in content supply, interaction methods and personalized guidance. The rapid development of digital technology injects impetus into educational innovation and provides an opportunity for private universities to break through resource bottlenecks and reconstruct the education ecosystem. A key proposition for private universities is how to deeply integrate technologies such as virtual reality and big data into ideological and political education, in order to build a system that reflects both ideological depth and contemporary relevance, thus achieving connotative development.

Keywords: private colleges and universities; digital technology; civic and political education; value implication; practice path

1. Introduction

Ideological and political education in private universities undertakes the important function of shaping the values of young people, and its effectiveness is related to the quality of talent cultivation and the recognition of social responsibility. Currently, due to problems such as weak teaching staff and single teaching methods in some private colleges and universities, ideological and political courses lack appeal and students' participation is limited. The intervention of digital technology can not only enhance the teaching appeal through immersive scenarios but also achieve precise education relying on data analysis. Exploring the path of technology empowerment requires being based on the actual situation of private universities, taking into account both instrumental and value rationality. It also involves building an 'ideological and political +' digital ecosystem through resource integration and model iteration, thereby opening up a new dimension for implementing the fundamental task of cultivating people with virtue.

2. Theoretical Foundations of Digital Technology Enabling Civic Education

2.1. Theoretical Framework for Digital Transformation of Education

The theoretical framework of educational digital transformation is rooted in the interdisciplinary perspective of philosophy of technology and educational ecology. Its core lies in reconstructing the interactive relationships of traditional educational elements, providing a basis for systematic transformation of ideological and political education in private universities. Technology-driven educational scenarios are no longer confined to physical spaces and linear knowledge transmission, but instead emphasize the autonomy

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of learners' cognitive construction and social collaboration in the virtual-real integrated environment. The unique flexible mechanism of private universities creates an experimental ground for the integration of technology into ideological and political education. Digital tools not only exist as teaching media but also serve as catalysts for activating students' sense of agency and reshaping the symbiotic relationship between teachers and students. The theoretical framework needs to address the tension between instrumental rationality and value rationality, balancing the pursuit of efficiency and ethical concerns in the process of data-enabled education, and internalizing technology application as the endogenous driving force for the modernization of ideological and political education. Relying on digital transformation to break through resource constraints, the theoretical exploration of private universities offers unique insights for improving the cultivation system of application-oriented talents [1].

2.2. The Core Mechanism of Technology-Enabled Education

The core mechanism of technology-enabled education lies in deconstructing the inherent model of one-way knowledge transfer in traditional education and reshaping the dynamic equilibrium between educators and learners with digital tools. The integration of technology into ideological and political education is not simply the addition of media means but triggers a systematic transformation in the production, dissemination methods, and evaluation system of teaching content. When private universities explore the path of technology integration under limited resources, they need to focus on the compatibility between the attributes of tools and the educational goals, and transform mechanisms such as algorithmic recommendations and intelligent feedback into effective strategies for stimulating students' value recognition. The digital reconstruction of the educational ecosystem requires that technology application goes beyond superficial efficiency improvement and thoroughly considers learners' cognitive processes and emotional needs informed by data, so that ideological and political education shifts from standardized output to precise guidance. The deep-seated logic of technology-enabled education is reflected in the reconstruction of the identities of educational subjects in virtual and real spaces, and the interaction between teachers and students shifts from authority-dominated to co-creation, providing theoretical support to help private universities break through the dilemmas of traditional ideological and political education.

3. Current Situation and Challenges of Civic and Political Education in Private Colleges and Universities

3.1. The Special Characteristics of Civic and Political Education

The uniqueness of ideological and political education in private universities stems from their distinct school-running orientation and educational targets. The diversified student source structure leads to significant differences in the levels of value perception, and the acceptance and demand dimensions of ideological and political education among student groups with different growth backgrounds show distinct characteristics. In the teaching staff composition, the proportion of full-time ideological and political teachers is relatively limited, and it is common for part-time teachers and administrative staff to undertake some teaching tasks. The consistency and professional depth of teaching concepts are easily affected by personnel turnover. There is a tension between students' preference for practical and interactive teaching models and the traditional way of theoretical indoctrination. Meanwhile, the teaching staff often faces the dual constraints of insufficient training resources and weak experience accumulation when dealing with the application of new teaching technologies. The structural contradiction between the student source and teaching staff makes it difficult for ideological and political education to form a stable discourse system, and the evaluation of teaching effectiveness often falls into the dilemma of reconciling standardized indicators with personalized development, posing profound

challenges for private universities to construct an ideological and political education model with school-based characteristics [2].

3.2. Limitations of Traditional Parenting Model

Traditional education models have increasingly revealed their limitations in the practice of ideological and political education in private universities. One-way knowledge indoctrination can hardly adapt to the cognitive habits and information acquisition methods of students in the digital age. The update speed of teaching resources lags behind the pace of social change, and there is a temporal and spatial mismatch between the textbook content and the hot topics that young people are concerned about, resulting in a more obvious disconnection between theoretical explanations and real-world considerations. The classroom interaction is limited to question-and-answer exchanges, lacking the design of a deep-dialogue mechanism, so students' critical thinking and value judgment abilities cannot be fully activated. The teacher-led teaching process overly relies on the standardized evaluation system, ignoring the capture of individual cognitive differences and emotional experiences, which plunges ideological and political education into the dilemma of an imbalance between instrumental rationality and value goals. There is a contradiction between the orientation of cultivating application-oriented talents unique to private universities and the tendency of traditional ideological and political courses to emphasize theory over practice, and the educational effect often shows weak sustainability in the aspect of students' behavior transformation.

3.3. Basic Conditions for the Application of Digital Technology

The basic conditions for the application of digital technology in private universities show significant differences among institutions. The uneven development of investment in hardware facilities and software management systems hinders the overall progress of the digital transformation of ideological and political education. Some institutions have built basic network platforms and multimedia teaching environments, but the lack of a data collection and analysis system makes the technology application stay at the level of display functions, failing to form an intelligent support system covering the entire teaching process. The technological application ability of the teaching staff shows a polarization trend. Young teachers have a high acceptance of emerging tools but lack the accumulation of teaching experience, while senior teachers are good at traditional teaching methods but face obstacles in technological adaptation. Private institutions generally lag behind in the establishment of cross-departmental data sharing mechanisms. The fragmentation of the educational administration system, student management platform, and ideological and political education resource library hinders the in-depth mining and precise application of educational big data. There is a gap in adaptation between the standardized solutions provided by technology suppliers and the school-based educational needs. The high-cost nature of personalized customized development makes the application of digital technology prone to fall into the dilemma of repetitive resource construction and low-level expansion [3].

4. Value Implications of Digital Technology Enabling Civic and Political Education

4.1. Enhancing the Attractiveness of Educational Content

Digital technologies have transformed the way educational content is presented, turning abstract theories into vivid audiovisual and interactive experiences. This transformation significantly improves the perceptual engagement and communicative impact of civic and moral education. Through the use of virtual simulations, immersive learning environments can be created, enabling complex ethical and social concepts to be conveyed more intuitively than traditional text-based approaches. Technology facilitates a shift from linear content delivery to a more networked and associative structure, allowing learners to engage with materials based on their cognitive preferences and explore key

themes through non-linear pathways. Algorithms further support this shift by identifying students' interests and knowledge gaps, thereby dynamically adjusting the granularity and pacing of content to align with the learning styles of younger generations. The real-time update capabilities of digital platforms ensure that educational materials can stay relevant, integrating contemporary issues into instructional content in a timely manner and reducing the disconnect between theory and current societal developments.

4.2. Enhancing the Effectiveness of Teaching Interaction

Digital platforms enable multi-dimensional, real-time interaction that extends beyond the physical constraints of traditional classrooms. These environments create continuous opportunities for dialogue, allowing students and educators to engage in dynamic exchanges of ideas. Interactive technologies support a feedback-rich ecosystem where students move from passive recipients to active participants in the learning process, and instructors can adjust their teaching strategies based on behavioral data insights. Virtual reality and role-playing tools enable students to participate in collaborative, contextualized learning tasks that cultivate critical thinking and ethical reasoning through shared experience. The integration of affective computing makes it possible to track students' emotional and cognitive states, allowing for differentiated and responsive interaction strategies. Ultimately, technology contributes to a more balanced and participatory teacher-student relationship. Knowledge transfer and moral development are naturally embedded into students' digital habits, making learning more intuitive and contextually relevant [4].

4.3. Promoting the development of personalized learning

Digital technology enables sophisticated learner profiling systems that accurately assess individual cognitive levels, learning behaviors, and interest patterns. This data-driven approach provides a solid foundation for designing differentiated instructional strategies. Adaptive learning algorithms dynamically tailor the difficulty and sequencing of educational content in response to real-time learning data, aligning instruction with students' developmental stages and cognitive readiness. Educators can utilize learning analytics tools to trace the often-invisible pathways of knowledge acquisition, creating space for personalized meaning-making while still supporting shared educational objectives.

Intelligent recommendation engines enhance learning by moving beyond the limitations of linear textbook structures. By analyzing individual thinking patterns, these systems generate multiple interconnected learning pathways that support exploration and autonomy. In this context, moral reasoning and value reflection are embedded seamlessly into learners' self-directed learning journeys.

Furthermore, emotion-aware diagnostic systems monitor students' engagement levels over time, offering real-time visual indicators to prompt timely instructional intervention. These tools help educators respond to individual needs that may be overlooked in conventional, standardized teaching settings. At its core, personalized learning powered by digital tools redefines the principle of tailoring instruction to individual aptitudes. It allows for both the synchronization of instructional pace and the deep customization of learning experiences within a collective educational framework.

5. Exploring Practical Paths

5.1. Smart Classroom Construction

The three-dimensional teaching space constructed by virtual reality technology breaks through the limitations of flat media, transforming abstract theories into interactive three-dimensional dynamic scenarios and activating learners' multi-dimensional perception channels. Scene designers use augmented reality technology to overlay virtual infor-

mation layers on the real environment, enabling ideological and political education elements to be naturally integrated into students' daily activity spaces and creating a boundary-less immersive learning experience. Technology developers need to balance hardware performance and educational applicability, ensuring immersive experiences while allowing space for learners' cognitive reflection to avoid excessive interference of sensory stimulation with the process of value internalization. Learners engage in role-playing and decision-making simulations in the virtual-real integrated environment. The re-enactment of historical events and the deduction of social problems are transformed into embodied cognitive practices, promoting the in-depth coupling of knowledge transfer and value construction. The iteration and upgrade of equipment must align with the developmental pace of educational practices and pedagogical effectiveness. Excessive pursuit of technological frontiers may lead to the waste of teaching resources. Maintaining the adaptability between technological tools and educational goals has become the core proposition for the sustainable development of smart classrooms.

5.2. Digital Resource Platform Construction

The construction of the school-based characteristic resource library focuses on the in-depth integration of subject advantages and regional culture. It relies on natural language processing technology to conduct semantic association and knowledge graph reconstruction of scattered educational resources. The resource integration team uses metadata standards to perform intelligent tagging on multi-modal materials, forming a dynamically growing school-based knowledge ecosystem to ensure the accuracy of resource retrieval and its adaptability to teaching scenarios. Platform architects need to establish a permission management mechanism within an open-sharing framework to balance intellectual property protection with the need for access and distribution of educational resources, thus stimulating the enthusiasm of teachers and students for co-creation and sharing. The crowdsourcing collaboration model is introduced for resource update and maintenance, transforming teachers' teaching reflections and students' practical achievements into vivid resource materials and forming a closed-loop teaching ecosystem. The intelligent recommendation algorithm pushes differentiated resource combinations according to users' behavior profiles, which not only highlights the school's educational characteristics but also meets the needs of personalized education, providing a school-based carrier for the dissemination of mainstream values. The resource quality control system is embedded in the full-life-cycle management module to guarantee ideological security from the source and achieve the precise supply and dynamic optimization of ideological and political education resources with the support of technology [5].

5.3. Network Parenting Position Building

The construction of the new media matrix breaks through the limitations of single-platform dissemination. By using the cross-platform content distribution mechanism, it forms a multi-dimensional information coverage network to achieve the three-dimensional penetration of mainstream values. The operation team should tailor content formats to align with the unique features of each media platform, transforming ideological and political elements into youth-friendly formats such as short videos and interactive web applications. The algorithm recommendation engine optimizes the accuracy of information matching. Based on respecting users' browsing habits, it establishes rules for prioritizing the push of positive-energy content, subtly shaping the value order in the cyberspace. Content producers use the public opinion monitoring system to capture the dynamics of online thoughts, and timely generate original interpretation products in response to social hotspots to enhance the practical relevance of ideological and political education. The user-generated content incentive mechanism taps into the creative potential of both teachers and students, transforming the achievements of curriculum-based ideological and political education into spreadable digital cultural assets and forming a

joint force for education both online and offline. The data security protection system runs through the entire process of content production and dissemination. While ensuring the activity of interaction, it establishes an ideological risk early-warning model, making the online education front both open and controllable. The data interconnection between platforms facilitates comprehensive educational impact analysis by enabling integrated access to diverse feedback sources, shifting evaluation from fragmented single-point inputs to holistic panoramic assessments, providing a continuous iterative basis for the dynamic optimization of communication strategies [6].

5.4. Data-driven Evaluation Reform

The learning behavior analysis model integrates a multi-source data collection system, incorporating implicit indicators such as classroom interaction frequency, resource browsing trajectories, and online discussion hotspots into the evaluation dimensions of ideological and political literacy. Designers of the evaluation system develop unstructured data processing algorithms to capture the micro-changes in students' emotional tendencies and value cognitions, breaking through the measurement bottleneck of traditional quantitative evaluation for complex ideologies. Algorithm engineers refine the weight distribution mechanisms of feature vectors to build dynamic correlation models that link students' mastery of knowledge with their depth of value-oriented understanding and ideological alignment, so that the evaluation results can reflect both the cognitive level and the depth of thinking. The data visualization interface presents individual growth curves and group evolution maps, providing immediate feedback for teachers to adjust teaching strategies and reversing the real-world dilemma where outcome-based evaluation lags behind the educational process. Privacy safeguards are embedded throughout the data collection and analysis lifecycle. On the premise of safeguarding students' information rights, a trustworthy data circulation mechanism is established to eliminate the constraints of ethical disputes on technological applications. Longitudinal cross-semester comparative analysis reveals the key nodes in the formation of values, assisting educators in grasping the timing of intervention and transforming evaluation data into a scientific basis for precise educational decision-making. The iterative mechanism of evaluation criteria introduces a double-cycle of peer review and social feedback to prevent the distortion of value judgments caused by algorithmic biases and maintain the value balance between technological rationality and educational laws.

5.5. Teachers' Digital Literacy Enhancement

The construction of the digital literacy training system for teachers needs to integrate educational principles and technological application scenarios to address the coordination challenge between the effective use of digital tools and the consistent transmission of educational values in a cognitively meaningful way. Designers of the training system develop modular course clusters, organizing modules on virtual simulation tools, educational data analysis, and online opinion guidance into a coherent progression for professional growth. Educational researchers establish digital portraits of teaching behaviors, track teachers' classroom language characteristics and multimedia usage habits, and generate personalized improvement suggestions and generate personalized improvement suggestions instead of relying solely on standardized assessments. Teachers form a digital resource co-creation community in blended training, through peer collaboration and hands-on practice, teachers gradually transform technological anxiety into intrinsic motivation for pedagogical innovation and reconstructing the teacher-student dialogue model in the information age. The competency certification system is integrated with continuing education credits, incorporating the technological application level into the title evaluation indicators to stimulate teachers' internal motivation to actively adapt to the digital transformation of education. The digital ethics module is deeply embedded in the training

courses to guide teachers to dialectically view the relationship between technological empowerment and the essence of education, strengthening their ability for humanistic reflection while improving their proficiency in tool use. The school-based practice community fosters an environment for the sharing and circulation of practical experiences, promoting the transformation of technological application achievements from individual breakthroughs to group sharing and forming a sustainable ecosystem for literacy improvement.

6. Conclusion

The in-depth integration of digital technology into ideological and political education in private universities is not only an inevitability of the era but also a necessity for reform. Through practices such as constructing smart classrooms, optimizing digital resources, and enhancing teachers' professional qualities, technology has been elevated from a mere tool to a revolutionary force for educational concepts. In the future, private universities need to strike a balance between technological application and humanistic care, drive teaching evaluation with data, and reshape the teacher-student relationship through interaction, so as to enable ideological and political education to generate internal impetus in the integration of the virtual and the real. Only by adhering to the essence of education can we achieve the leap from formal innovation to value deepening in technology-enabled education and inject lasting vitality into talent cultivation.

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