The Construction Logic and Practical Path of Digital-Intelligence-Empowered Ideological-Political Mentoring Communities for Graduate Students

Zhang Bo

School of Marxism, Anhui Medical University, Hefei, Anhui 230032, China.

DOI: 10.64649/yh.eg.issn3078-4794.20260514

Abstract: Digital-intelligent technologies reshapes the interactive form of graduate student mentoring, creates new opportunities and brings new challenges for the construction of postgraduate guidance ideological and political education community. Based on the theory of ideological-political education communities, this paper analyzes its internal operation mechanism from the three dimensions of value logic, factor logic and governance logic, and identifies the realistic dilemmas such as loose subject connection, emotional fracture of guidance, single platform resources and insufficient system guarantee in the current construction of guidance community. Based on this, from the aspects of strengthening value guidance, enhancing subject coordination, reconstructing scientific elements, and consolidating system guarantee, this paper puts forward the practical path of digital-intelligence enabling graduate students to guide the ideological-political education community, and provides theoretical reference and practical scheme for the construction of graduate students´ guidance community and the optimization of graduate students ´ training quality in the digital-intelligent era.

Keywords: digital-intelligence empowerment; ideological-political mentoring communities for graduate students; mentoring relationships; graduate education

0. Introduction

General Secretary Xi Jinping emphasized that "graduate education plays a pivotal role in cultivating innovative talents, bolstering innovation capacity, serving socioeconomic development, and advancing the modernization of China's system and governance capacity." [1] The construction of the community of ideological-political education is the key link to implement the task of moral education and improve the quality of postgraduate training. Against the backdrop of advancing educational digitalization, , we should make changes with the times from the aspects of subject, concept, resources and ecology, so as to cope with the opportunities and challenges brought by digitalization.

1. The Era-Specific Value of Digital-Intelligence-Empowered Ideological-Political Mentoring Communities for Graduate Students

Developing digital-intelligence-empowered ideological-political mentoring communities for graduate students is an active choice to implement the fundamental task of foster virtue through education in the new era, conform to the trend of digital transformation of education, and improve the quality of graduate education. This is the core support for the implementation of the moral education of postgraduate education. *Opinions on Accelerating the Reform and Development of Postgraduate Education in the New Era* identifies :ideological-political work as a critical measure for graduate education reform and development. It explicitly requires supervisors to assume primary responsibility for fostering virtue through education and advocates establishing a full-staff, whole-process, all-round educational framework. [2]As an implicit ideological-political education carrier throughout the entire workflow of enrollment selection, research training, degree conferral, and career development,ideological and political guidance is the core starting

point to solve the tendency of "emphasizing scientific research and neglecting moral education" in postgraduate training, fill the shortcomings of postgraduate comprehensive quality cultivation, and meet the needs of national strategies and regional development talents. The deep embedding of digital-intelligence technology can promote the guidance of ideological-political education from the traditional stage-focused education and transactional communication to the normalized value guidance integrated into the whole cycle of postgraduate growth, so that the requirements of moral education can really run through all aspects of academic guidance, scientific research practice and daily communication.

At the same time, such communities are also the practical need to standardize the application of digital-intelligent technologies and avoid the risk of technological alienation. While digital-intelligent technologies reshape mentoring modalities, if the technical tools are separated from the orientation of educational objectives, there may be a deviation of "emphasizing transaction efficiency over emotional connection, emphasizing data quantification over value" guidance, and even eliminating the educational essence of postgraduate education. The essence of the construction of the community is to establish a balance mechanism between the application of technology and the law of education, and guide the digital intelligence technology to always play a role around the core goal of fostering virtue through education, so that technology can serve the benign construction of the relationship between guidance and learning and the overall growth of graduate students, rather than the external constraints of teacher-student interaction.

From the perspective of specific educational efficiency, digital-intelligence empowerment has broken the inherent limitations of traditional guidance ideological and political education in time and space boundaries, resource supply, and subject coordination, and provided a new path for the quality improvement and upgrading of guidance ideological and political education.In terms of educational coverage, digital-intelligent technologies can seamlessly embed ideological-political elements into routine mentoring scenarios such as academic seminars, project research, and experimental practice. This changes the single mode of previous guidance ideological and political education relying on thematic discussions and centralized education, and enabling value guidance to permeate teacher-student interactions subtly and continuously. In terms of precise supply-demand matching, we can accurately identify the differences in the ideological and political needs of different postgraduate groups by relying on the multi-dimensional data such as the academic direction, growth stage and ideological dynamics of postgraduates, so as to provide mentors with a more targeted entry point for education, solve the pain points of " one size fits all " in the traditional guidance of ideological-political education, and make the value guidance more suitable for the real thoughts and growth reality of postgraduates.

2. Internal Logic of Digital-Intelligence-Empowered Ideological-Political Mentoring Communities for Graduate Students

2.1 Value Logic

After digital and intelligent technologies are integrated as new elements into the community, their essential attribute remains "people-oriented education" rather than "technology". From the perspective of educational essence, the digital and intelligent empowerment of the graduate guidance community must consistently anchor the fundamental goal of fostering virtue through education, which is the fundamental guideline that runs through the entire process of technology application, platform establishment, and process optimization.Digital-intelligent technologies are not merely tools to replace the traditional interactive guidance.Instead, through the perception, circulation and intelligent analysis of data, it opens up the connection barriers between mentors and postgraduates at the academic, growth and ideological levels, so that the two sides of guidance and learning can change from the traditional mode of "one-way guidance and passive acceptance" to the educational community relationship of "two-way running and coordinated growth. "

From the fundamental logic of value orientation, digital-intelligence empowerment should always prioritize "people-centeredness first" instead of "efficiency first".The ultimate goal of introducing technological tools is to return to the true nature of education, that is, by accurately capturing the individual needs of graduate students in academic research, psychological state and career development, to provide data support for mentors to carry out classified guidance and warm education.Guided by this value orientation,digital-intelligent technologies should become a universal tool to narrow the gap between guidance information and disciplines, and to solve the shortage of high-quality mentor resources. It should also become a digital bridge between teachers and students´ emotional connection beyond time and space barriers, so as to avoid the evolution of technology application into the mechanical control of the guidance process and the excessive quantification of teachers and students´ behavior.Thereby, the educational essence of " reciprocal advancement between supervisors and students" can be deepened in the context of number intelligence, and the two-way unity of technical instrumental rationality and educational value rationality can be realized.

2.2 Element Logic

The operation of the community is based on the collaborative linkage of the core elements such as the subject of education, digital-intelligent technologies, the resources of education, and the scene of guidance. Each element forms an organic whole under the guidance of the unified goal of education, rather than a simple superposition of scattered technical tools.The educational subject is the core dynamic element of the community.Digital-intelligent technologies provide information channels and interactive carriers for coordinated linkages among diverse actors: supervisors, graduate students, counselors, administrative departments, and off-campus practice supervisors. Scientific research projects and thematic practices facilitate resource exchange and value reciprocity, fostering a symbiotic pattern: supervisors undertake moral education, counselors deliver psychological support, enterprises cultivate professional talents, artificial intelligence enables learning, and graduate students pursue self-driven development, thereby achieving triple value co-creation of individuals, universities, and society.

Digital and intelligent resources serve as the fundamental support for the operation of the community.Relying on VR and large model digital transformation of local red historical materials and typical industrial cases, and structured processing as ideological and political elements, classified and sorted out to form a searchable, adaptable and reusable ideological and political resource library for guiding learning. Through classified storage and accurate matching, it provides suitable content supply for guiding learning interaction in different disciplines and different growth stages.

Mentoring scenarios is the field support of factor linkage. Digital-intelligent technologies integrate physical and virtual co-presence, enabling the elements of ideological and political education can be naturally embedded in various scenarios such as academic discussion, scientific research,and daily communication, and achieving full-process educational coverage.

Regarding inter-element interaction mechanisms, digital-intelligent technologies serve as connectors running through all components. According to relational education theory, "the fundamental aim of education is to enhance the potential of those engaged in relational processes."[3] As intermediaries, digital-intelligent technologies upwards undertakes the needs and goals of the subject of educating people, transforming the educational experience of mentors and the growth needs of graduate students into transferable and analyzable data signals ; downlink the education resources and scene configuration, and realize the accurate push of resources and the dynamic adaptation of the scene based on the data characteristics.Centered unswervingly on educational goals, the entire community dynamically adjusted and formed a closed loop according to the actual results of the guidance interaction, user experience, and the data of students´ growth and change.In this way, digital-intelligence-empowered ideological-political mentoring communities

has the ability to self-adjust and continuously optimize.

2.3 Governance Logic

Governance of digital-intelligence-empowered ideological-political mentoring communities for graduate students centers on constructing a collaborative governance system with clear rights and responsibilities, standardized processes and multi-party participation based on digital-intelligent technology.This breaks the limitations of single subject, vague rights and responsibilities and lagging feedback in the traditional ideological and political theory of guiding learning, and realize the transformation from one-way management to multi-governance.

In terms of governance structures, digital-intelligent platforms provide tangible digital carriers for the division and coordination of powers and responsibilities of different educational subjects.The primary responsibility of the mentor in educating students, the overall guarantee responsibility of the management department, the daily guidance responsibility of the counselor, and the practical education responsibility of the off-campus practice mentor should be integrated into a unified governance framework through data correlation. This approach aims to avoid the occurrence of responsibility gaps or multiple management authorities.Graduate students, as the core target of education, can also provide feedback on their own growth needs and opinions on the guidance work through digital channels. They can transform from passive recipients of governance to active participants in governance, aligning governance procedures more closely with inherent graduate growth laws.

From the perspective of governance operational mechanisms, digital-intelligent technologies enable the governance process to achieve dynamic and refined closed-loop management.On the one hand, through the continuous collection and analysis of the interactive data, resource use data and growth feedback data, the governance subject can grasp the operation state of the community in real time, find out the problems such as the alienation of the mentoring relationship, the lack of resource adaptation and the absence of subject coordination in time, lagging mode of relying on regular inspection and post feedback in traditional governance, and realize the preposition and pertinence of governance.On the other hand, data governance norms form an essential baseline for digital-intelligent mentoring-based ideological-political governance. By clarifying the collection boundary, use authority and storage cycle of ideological and political data, and establishing rigid rules for data security and privacy protection, we can effectively avoid ethical risks such as data abuse and privacy leakage, so that digital intelligence governance can always run within the framework of educational laws and ethical norms.Ultimately, this multi-dimensional collaborative, dynamic optimization, and orderly regulated governance logic can provide institutional support for the graduate mentoring community, enabling the educational effectiveness empowered by technology to be continuously and stably released.

3. Practical Challenges Confronting Digital-Intelligence-Empowered Ideological-Political Mentoring Communities for Graduate Students

3.1 Insufficient Coordination among Educational Stakeholders

For one thing, both supervisors and graduate students demonstrate relatively weak awareness of applying digital-intelligent technologies for ideological-political education. Teachers tend to treat technologies merely as optional tools, which hinders deep integration of technologies into educational practice. [4]Most supervisors use digital-intelligent tools only for routine administrative communications such as online meetings, job submission, and scientific data sharing, without actively recognizing the need to rely on digital-intelligent platforms for regular ideological-political exchanges and growth dialogues.Similarly, graduate students primarily utilize mentoring digital platforms for functional needs such as academic notifications and document submission. The interaction between teachers and students in the digital space remain fragmented and task-driven,lacking in-depth dialogues and emotional bonding around value guidance, ideological

guidance, and academic planning.

For another,the digital coordination mechanism of multiple education subjects such as counselors, graduate management departments, and off-campus practice mentors is not yet fully established. The data ports of each subject are independent of each other, and the phenomenon of information islands is prominent. Consequently, It is difficult to form a unified education force around the ideological and political performance and growth dynamics of graduate students.

3.2 Emotional Alienation within Mentoring Relationships

Benign educational guidance relies on shared interactive situations such as offline discussion, field research, teacher-student communication and so on.The "screen-to-screen" interaction between teachers and students not only breaks the limitation of time and space and improves the efficiency of communication,but also weakens the emotional transmission effect in the traditional " face-to-face " guidance interaction to a certain extent.Online communication is difficult to carry the deep emotional connection such as the mentor ´s patient guidance to the graduate students ´ academic confusion, the empathy care of the life dilemma, and the value guidance of the growth choice, which leads to the gradual alienation of the mentoring relationship into the instrumental relationship of "task docking and achievement delivery".Accordingly, mentoring relationships risk degenerating into instrumental ties revolving around task allocation and deliverable submission. [5]The emotional foundation on which mentorship-based ideological and political education relies to function has been weakened, and even the frequency of mentor-student interaction is reduced and the psychological distance between teachers and students is widened , which is in stark contrast to the construction goal of ´ emotional communion and value consensus ´ of the ideological and political education community of guidance.

3.3 Poor Alignment of Educational Resources

At present, most colleges and universities have built a digital intelligence resource platform around the guidance of ideological and political education, which suffer from low content precision and insufficient exploitation of local value resources.First, existing digital resources are dominated by generic materials: general ideological and political lectures, interpretations of policy documents, and career planning guidance,while specialized ideological and political resources for specific scenarios are relatively scarce. Ideological-political materials lack innovative situations such as subject characteristics, local red culture, and hierarchical design of industrial craftsman spirit.It is difficult to meet the differentiated use needs of both parties, and it is also difficult to realize the value guidance of serving local social and economic development.Second, the push mechanism of digital intelligence resources are not deeply coupled with graduate growth data and mentoring interaction data. Severe misalignment between resource supply and practical needs which leads to the low utilization rate of platform resources.It is difficult to truly integrate into the daily guidance process and provide effective content support for ideological-political education.

3.4 Lagging Institutional Safeguards

Currently, the work content, implementation standards, and assessment requirements for integrating ideological-political education into academic supervision in digital-intelligent scenarios lack clear definition, resulting in a lack of rigid institutional constraints and positive guidance for the development of digital-intelligence-empowered mentoring-based ideological-political education at the institutional level.The privacy protection mechanism in the process of data collection, storage and use is not perfect. The collection boundary of sensitive data such as postgraduates ´ ideological dynamics, behavior trajectory and academic performance is not clear, and the use authority is not clear. There are also data ethical risks.

Moreover, the existing evaluation system is oriented by scientific research output, and the evaluation system of value-led effectiveness is not perfect. There even exists a tendency to over-quantify mentoring interaction frequency and mechanically evaluate ideological-political work

outcomes.There is even a tendency to over-quantify the frequency of guidance interaction and mechanically evaluate the effectiveness of ideological and political work. It is not only easy to cause graduate students ´ privacy anxiety and resistance, but also may lead to the formal misunderstanding of " emphasizing data retention and neglecting actual results", which deviates from the essential requirements of education.

4. Practical Pathways for Constructing Digital-Intelligence-Empowered Ideological-Political Mentoring Communities for Graduate Students

4.1 Value-Oriented Guidance: Establishing the “Technology for Educational Good” Orientation

As the logical starting point for community construction, the core of the value-led path is to always run through the whole process of the application of digital intelligence technology, so that the digital intelligence platform and intelligent tools always serve the benign mentoring relationships and the overall growth of graduate students, preventing technology’s instrumental rationality from overriding education’s value rationality.

Higher-education administrative authorities needs to establish a clear value calibration mechanism during the planning, construction and iteration process of the guidance and learning digital platform.The fundamental task of fostering virtue through education shall be refined into the core basis of technical function design. Whether it is conducive to protecting the emotional connection between teachers and students, whether it is conducive to respecting the growth law of graduate students, and whether it is conducive to releasing the initiative of tutors in educating people are always taken as the evaluation criteria. The relevant modules of the platform involving mentoring interaction monitoring, developmental data collection, and educational-effect evaluation are optimized, and the value orientation is built from the technical source.Meanwhile, supervisors and graduate students should enhance awareness of intelligent education and cultivation and build consensus that “technologies serve education and digital intelligence empowers mentoring,” laying solid ideological foundations for community development.Supervisors and graduate students should clearly recognize the tool attributes and service positioning of

digital-intelligent technologies within mentoring-based ideological-political education, reverse the one-sided cognition that digital-intelligent platforms is regarded as a transactional office carrier.Mentors are encouraged to take the initiative to use digital-intelligence tools to expand value guidance channels, and guide graduate students to use the digital-intelligence platform as a reliable carrier for academic support, ideological guidance and growth.Nevertheless, we must also be cautious of the situation where "screen-to-screen" replaces "face-to-face" completely. Education cannot solely rely on digital behaviors and data presentation, but should pay more attention to the actual effectiveness of ideological and political education.

4.2 Multi-Stakeholder Engagement: Building a Collaborative Multi-Agent Linkage Framework

Relying on digital intelligence technology to build a collaborative connection channel through multiple subjects, we will change the pattern of over-reliance on the individual decentralization of mentors and the separation of education ports in the past.

First, clarify the hierarchical subject ´s power and responsibility framework.According to the *Opinions on Fully Implementing Postgraduate Supervisors’ Duties of Fostering Virtue through Education*, supervisors, as core value-guidance providers, set the educational orientation for mentoring-based ideological-political education. Stakeholders are categorized into the core layer (supervisors and graduate students), the supporting layer (counselors and industrial supervisors), and the technical layer (AI agents), with well-specified educational rights and obligations assigned to each group.[6]Highlight the core role of the mentor as the primary person responsible for guiding ideological and political education, and support them to carry out academic guidance and value orientation through digital-intelligent platforms.At the same time, connect the

information interaction interfaces among counselors, graduate management departments, and off-campus practice mentors.Under the premise of strictly protecting students ´ privacy, we will realize the orderly sharing of graduate students ´ ideological dynamics, academic progress, and practical performance, and avoid the problem of educational responsibility vacuum or repeated intervention.

Second, collaborative response mechanisms should be established on digital-intelligent platforms. In response to the common and individualized needs of graduate students in terms of research bottlenecks, psychological pressure, and career choices, we should promote the division and cooperation of multi-agents and make efforts in the same direction, and integrate the scattered educational forces into a community force with smooth linkage and complementary connection. Furthermore,we can also attract social educational resources such as industry leaders and outstanding alumni to participate in the learning guidance interaction through digital terminals. We will expand the educational boundaries through activities such as project collaboration, experience sharing, and career guidance, so that graduate students can receive appropriate guidance and support at different growth stages.

4.3 Element Reconstruction: Realizing Integration between Digital-Intelligent Components and Traditional Mentoring Elements

The element reconfiguration path responds to the deep-seated problems of decentralized allocation and structural imbalance of ideological and political elements.Through the organic coupling of digital and intelligent elements with traditional guiding elements, the key components of the guiding and ideological education community are activated, and the operation mechanism and action mode of guiding and ideological education are reformed.

In practical implementation, the first step is to conduct a digital analysis and value transformation of the core elements of traditional ideological and political education.Aiming at the long-term accumulated educational experience of the mentor group and the value core of the subject inheritance,relying on the knowledge map, semantic recognition and other digital intelligence technologies to carry out structured disassembly and labeling processing, the scattered distribution in the tutor individual, subject teaching and research section, college level guidance ideological and political content is transformed into a transferable, searchable and reusable digital intelligence resource.Relying on the carrier of digital intelligence, we can break through the limitations of traditional guidance elements in the space-time dimension.By leveraging the enabling effect of digital and intelligent technologies, we can fully activate their inherent educational value.

In addition, a two-way adaptation mechanism between digital and intelligent elements and traditional guiding elements needs to be established.On the one hand, to avoid the problem of "separation" between digital intelligence technology and the guidance process,integrate intelligent matching, data analysis, dynamic feedback and other digital intelligence functions into traditional guidance steps such as daily academic guidance, group meetings, thesis guidance, and practical teaching, so that digital intelligence tools can become auxiliary means for mentors to carry out value guidance.For instance, digital-intelligent platforms can capture graduate students' individualized research and academic-development demands,and assist the mentors in accurately identifying the student groups that require attention.On the other hand, we must always adhere to the core educational philosophy of traditional guidance, which emphasizes emotional connection and hands-on teaching. We must also prevent the substitution of face-to-face educational scenarios by digital and intelligent technologies.The role of digital and intelligent elements is to empower the traditional guiding elements rather than restructure the educational logic. They should strengthen the emotional connection between the two parties involved in the guidance process through digital and intelligent ties, rather than weakening the in-depth interaction between teachers and students.

4.4 Institutional Safeguards: Developing an Institutional Framework for a Well-Functioning, Symbiotic Mentoring-Based Ideological-Political Education Ecosystem

The institutional guarantee approach serves as a powerful support for enabling the stable operation of the graduate student guidance, learning, and ideological and political education community through digital and intelligent means.

Firstly, a sound set of management systems for digital-intelligent guided ideological and political education needs to be established.A clear institutional definition should be established for the work content, implementation standards, and responsibilities of the teaching and ideological education. The basic duties of the mentors in conducting value guidance through the digital and intelligent platform should be clarified. The data collection and usage rights of the management department should be standardized. The work boundaries for the counselors to participate in collaborative education should be delineated. So that the whole process of digital-intelligent guided ideological-political education is governed by established rules.

Secondly, strengthen the institutional defense line for data ethics and privacy protection.Clearly define the collection boundaries, usage scope and storage period for sensitive data such as the ideological trends, academic performance and psychological state of graduate students. Establish an authorization approval and full traceability mechanism for data usage. From the institutional level, eliminate the anxiety of graduate students regarding data leakage and excessive monitoring of their behaviors, and ensure that the application of digital technology always operates within a secure and compliant framework.

Finally, outcome-evaluation systems tailored for digital-intelligent mentoring-based ideological-political education shall be reconstructed. The evaluation system covers five dimensions: research achievements, ideological and political literacy, research innovation, social practice, and community construction effectiveness. It is based on all-round data to achieve dynamic evaluation.In addition, by implementing targeted incentive policies, we can motivate the participation of various stakeholders.Eventually, by focusing on building a complete chain of institutional systems including incentive guidance, process management, and dynamic monitoring, we can form a student ideological and political education ecosystem with clear constraints, compatible incentives, and smooth operation, and continuously release educational effectiveness.[7]

5. Conclusion

The deep integration of digital and intelligent technologies with the ideological and political education community for graduate students not only conforms to the trend of digital transformation in higher education, but also meets the inherent requirements for enhancing the precision and effectiveness of ideological and political work for graduate students.In the future, with the continuous iteration of digital and intelligent technologies and the continuous deepening of educational concepts in higher education, the development of digital-intelligence-empowered ideological-political mentoring communities will continuously explore, calibrate and improve in practice.It will help foster a mentoring-based ideological-political education ecosystem featuring coexistence of teachers and students, coordinated elements, institutional guarantee, and technological empowerment,providing solid support for the comprehensive cultivation of talents and the high-quality development of universities.

Funding: Anhui Social Science Innovation and Development Research Project"A Study on the Formation Mechanism and Practical Path of Mainstream Ideological Discourse Power in the AI Era" (2024CX036); Key Teaching and Research Project of Ideological and Political Theory Courses, Anhui Quality Engineering "A Study on Innovative Precise Education of College Ideological and Political Theory Courses in the New Era Empowered by a Digital-Intelligent Society"(2024sxzz017); University-level Teaching Research Project, Anhui Quality Engineering "A

Study on the ‘Virtual-Real Symbiosis’Teaching Approach of University Ideological and Political Theory Courses for the Training of Excellent Doctors”(2022xjjyxm)

References

[1] National Committee of the Chinese People’s Political Consultative Conference. (2020, July 30). Xi Jinping delivers important instructions on postgraduate education: Meet the needs of the Party and national development and cultivate a large number of high-level talents with both moral integrity and professional competence; Li Keqiang issues instructions. Retrieved December 23, 2025, from http://www.cppcc.gov.cn/zxww/2020/07/30/ARTI1596065862623103.shtml

[2] Ministry of Education, National Development and Reform Commission, & Ministry of Finance. (2020). Opinions on accelerating the reform and development of postgraduate education in the new era. Gazette of the State Council of the People’s Republic of China, 34, 72-76.

[3] Gegen. (2017). Relational being: Beyond self and community (L. Yang, Trans.). Shanghai Educational Publishing House.

[4] Wang, Y., Zhu, T., & Yang, S. (2024). Human-computer collaborative teaching: Motivations, essence and challenges. E-education Research, 45(8), 27-34.

[5] Ali, M. M. (2023). Datafication, teachers’ dispositions and English language teaching. TESOL Quarterly, 57(3),

1033-1059.

[6] Ministry of Education. (2018). Opinions on fully implementing postgraduate supervisors’ duties of fostering virtue through education. Gazette of the Ministry of Education of the People’s Republic of China, Z1, 57-59.

[7] Gao, J., & Lu, J. (2026). Dimensions, requirements and practical approaches of constructing postgraduate mentoring relationships guided by fostering virtue through education. Gansu Educational Research, 86(5), 240-244.