Journal of Computer and Communications, 2026, 14(11), 153-163
https://www.scirp.org/journal/jcc
ISSN Online: 2327-5227
ISSN Print: 2327-5219

# Research on the Path of Empowering Precise Ideological and Political Education for Counselors in Higher Vocational Colleges with Artificial Intelligence from the Perspective of Large Model Evolution

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**How to cite this paper:** Li, X.P. and Zheng, D.H. (2026) Research on the Path of Empowering Precise Ideological and Political Education for Counselors in Higher Vocational Colleges with Artificial Intelligence from the Perspective of Large Model Evolution. *Journal of Computer and Communications*, **14**, 153-163.
https://doi.org/10.4236/jcc.2026.1411007

**Received:** October 29, 2026
**Accepted:** November 17, 2026
**Published:** November 20, 2026

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## Abstract

In recent years, large model technology has evolved from text generation to long text understanding, complex reasoning, multimodal interaction, tool invocation, and task collaboration, providing new technical conditions for counselors in higher vocational colleges to carry out precise ideological and political work. The potential value of the new generation of large models lies in assisting counselors with data organization, problem induction, content adaptation, process reminders and process review, unlike the earlier "write-material-style" applications. Given the political nature, educational nature and data sensitivity of ideological and political education in higher education institutions, higher vocational colleges should not simply copy the way foreign large model tools are used. Instead, they should adhere to domestic priority, school-based deployment, compliance review and manual review, and choose a large model application path that is approved by the school, data is secure and controllable, and output results are traceable. Based on the existing research on precise ideological and political education and AI-enabled ideological and political education, and in combination with the development trends of large models at home and abroad, this paper proposes that counselors in higher vocational colleges can promote AI-assisted precise ideological and political education from aspects such as school-based knowledge base, student development needs analysis, vocational education scenario-based resources, internship and employment feedback organization, and institutional ethical guarantee. The key to AI empowerment is not to replace the educational judgment of counselors, but to improve the problem discovery ability, content adaptation

ability and continuous follow-up ability of student work in a human-machine collaborative way.

## Keywords

AI, Large Models, Higher Vocational Colleges, Counselor, Precise Ideology

## 1. Question Raising

Outline of Plan for Building China into a Leading Country in Education (2024-2035) proposes to promote artificial intelligence to assist educational transformation, drive the digital transformation of education, and build a modern vocational education system [1]. The Opinion on Promoting High-Quality Development of Modern Vocational Education emphasizes that vocational education should adhere to the principle of cultivating virtue and skills, and deepen industry-education integration and school-enterprise cooperation [2]. These policy requirements determine that ideological and political education in higher vocational colleges should not remain at the level of classroom instruction and activity organization, but should actively enter vocational education scenarios such as professional learning, skills training, job internships and employment choices. For counselors, precise ideological and political education should respond to the differences in students' growth and serve the characteristics of the type of vocational education.

Precise ideological and political education emphasizes targeted ideological and political education based on students' growth characteristics and actual needs. Studies have pointed out that precise ideological and political education should focus on precise needs, precise drip irrigation and precise assessment, and be vigilant against technocratic tendencies. In the context of colleges and universities, the construction of precise ideological and political platforms usually relies on technologies such as big data, algorithmic recommendation and artificial intelligence to achieve educational information identification, content supply and effect evaluation [3]. These studies provide a theoretical basis for the entry of AI into the work of counselors, but also leave a practical question: when large model technology continues to evolve, how exactly should counselors in higher vocational colleges transform it into an operable, verifiable, and accountable approach to student work.

In recent years, there have been quite a few studies on AI and ideological and political education. Since the emergence of ChatGPT, the academic community has noticed that generative AI can be involved in the production of ideological and political education discourse, but it also brings risks such as the authenticity of information sources, language understanding, ideological security and imbalance of subject relationship [4]. Educational technology research further summarizes the educational application potential of generative AI in areas such as heu-

ristic content generation, dialogue context understanding, sequential task execution, and programming language parsing [5]. These findings suggest that AI empowering ideological and political education is no longer a new topic. The focus of this article should not remain on the general judgment that "AI can enhance efficiency", but rather respond to the new technological shift: from single text generation to long text processing, complex reasoning, multimodal understanding, tool invocation, and task collaboration.

The five implementation pathways were derived through a systematic synthesis of the reviewed literature and policy documents. Literature was retrieved from CNKI, Wanfang, and VIP using keywords such as "precise ideological and political education", "AI-enabled education", "large model education application", and "vocational college digital transformation", focusing on publications from 2021 to 2025. Policy documents were selected for their relevance to AI governance in education, data security, and vocational education development, including national-level directives from the CPC Central Committee, the State Council, the Ministry of Education, and the Cyberspace Administration of China. A thematic coding approach was applied: literature was grouped into three themes—precise ideological and political education theory, AI-enabled education practice, and vocational education digital transformation—and cross-referenced with policy requirements to identify areas where large-model capabilities could be meaningfully applied. The five pathways emerge from this cross-analysis as the points of strongest alignment between technological affordances, educational needs, and policy imperatives. This derivation is conceptual rather than empirical, and the pathways represent proposed directions rather than validated practices.

## 2. Existing Foundations and Real-World Dilemmas

From the perspective of the literature base, precise ideological and political education, artificial intelligence-enabled ideological and political education, and digital transformation of ideological and political education in higher vocational colleges have formed relatively rich discussions. Zhou Rong and Lin Jianhui argue that AI empowering precise ideological and political education in colleges and universities is mainly reflected in optimizing precise analysis, achieving precise supply and promoting precise connection [6]. Zhong Dandan and Wei Yanyang, starting from the online ideological and political work of college counselors, proposed that artificial intelligence technology should be used to improve the model of moral education and "all-round education" [7]. In the context of higher vocational education, Yin Ningchongzi pointed out through investigation that under the background of digital transformation, the degree of precise teaching of ideological and political courses in higher vocational colleges is still relatively low, and there are problems such as insufficient teaching conditions, the connection before, during and after class, and the matching of students' needs [8]. Zhang Ji and Chen Mingjie further discussed challenges such as ideological games in cyberspace, imbalance in the digital ecosystem, value conflicts, and digital ethical risks from the

perspective of digital transformation of ideological and political education in higher vocational colleges [9].

These studies collectively suggest that the application of artificial intelligence must handle three sets of relationships simultaneously. First, the relationship between precision and nurturing. Precise ideological and political education should not be narrowed down to data identification and algorithmic push, nor should students' periodic performance be solidified as labels. Second, the relationship between efficiency and warmth. Intelligent ideological and political education can enhance decision-making, content supply and process monitoring capabilities, but it also hides information shortage, rigid thinking, cognitive shielding and technical ethics risks [10]. Third, the relationship between general college experience and higher vocational scenarios. Higher vocational students' growth is more directly embedded in professional learning, skills training, job internships and employment choices. Counselors' ideological and political work must respond to issues such as professional identity, labor spirit, job norms, internship rights and employment values.

Based on the reviewed literature and observable practices, there may be three possible implementation concerns in the current use of artificial intelligence by counselors in higher vocational colleges, though the prevalence of these concerns across different institutions has not been systematically surveyed. First, the application remains at the level of material generation. Some counselors use AI to write notices, class meeting drafts, and activity summaries, but do not embed the tools into student development needs analysis, educational activity design, and follow-up. Secondly, there is a lack of scenario transformation. General models tend to generate conceptualized expressions such as "firm ideals and beliefs" and "enhanced sense of responsibility", but have difficulty automatically adapting to specific professional contexts such as rail transit, modern logistics, e-commerce, and nursing services. Thirdly, there is a lack of boundary awareness. If the student behavior data is simply interpreted as a state of mind and the model output is directly used for student evaluation, rewards and punishments, financial aid, or focused attention, there will be risks of privacy leakage, algorithmic bias, and labeling.

## 3. Implications for Counselors' Precise Ideological and Political Education from the Evolution of Large Models

In terms of technological development, large models at home and abroad are moving from "being able to answer" to "being able to reason, understand multimodal materials, invoke tools, and handle long tasks". Domestically, Tongyi Qianwen's Qwen3 series emphasizes hybrid thinking patterns, multilingual capabilities and tool invocation capabilities, and suggests that model development is shifting from training models to training agents; DeepSeek-R1 and subsequent updates highlight the improvement of reasoning capabilities, and the official documentation also highlights thinking patterns, multi-round conversations, tool invocation, etc.

as important capability directions; Zhipu GLM, Kimi, Wenxin, Doubao and other models continue to develop in long text processing, multimodal understanding, office collaboration and agent applications. Abroad, models such as GPT, Gemini, Claude also demonstrate trends in complex reasoning, multimodal interaction, tool usage, and agent-based task processing. From a technical perspective, three advances underpin the workflows in Section 4. First, long-context processing (128 K+ tokens) enables comprehensive analysis of lengthy materials, supporting the school-based knowledge base in Pathway 1. Second, tool invocation allows models to interface with external systems, facilitating the lightweight digital tools in Pathway 3 [11]. Third, multi-agent frameworks separate information organization from educational judgment, forming the basis of the closed-loop mechanism in Pathway 5 [12]. Together, these capabilities transform models into active task-assistance systems. However, for higher vocational counselors in China, foreign models should serve only as technical references, not as direct tools for handling student data or conducting ideological and political work.

This judgment is not a technical exclusion but is determined by the context of ideological and political education itself. The work of counselors involves students' personal information, family economic conditions, psychological support, internship performance, employment intentions and value guidance, and has distinct educational attributes and data sensitivity. The prioritization of domestic models follows China's generative AI and algorithm governance requirements, including the Interim Measures for the Administration of Generative Artificial Intelligence Services [13] and the Provisions on the Administration of Algorithm-Generated Recommendations for Internet Information Services [14], which require security assessment, algorithm filing, value alignment, and auditable data handling for public-facing AI services. In the context of precise ideological and political education for higher vocational counselors, large-model applications should therefore prioritize domestically produced, school-approved, and school-controllable platforms, adopt minimum-necessary data collection, and maintain manual review. Approved providers should implement data residency within China, role-based access control with audit trails, content security filtering, and regular security assessments and algorithm filing. Decisions involving student rights, evaluation, rewards and punishments, psychological referrals, and risk management must not be automatically made by models.

The large model empowering vocational college counselors with precise ideological and political education is first manifested in the shift from "text generation" to "task assistance". Large models can help counselors sort out policy documents, draft class meeting materials, categorize anonymous feedback, extract themes from internship weekly diaries, organize employment information, and record activity reviews. For example, when conducting pre-internship theme class meetings, counselors can submit anonymized student questions, enterprise job requirements, school internship management documents, and typical problems from previous years to the on-campus compliance platform for collation to form

"high-frequency question lists, situational cases, discussion questions, class meeting processes, and follow-up tables". The counselor then conducts fact-checking and value screening to transform the model output into an applicable educational program.

Secondly, large models help shift from "student portraits" to "dynamic needs profiles". Precise ideological and political education requires understanding students, but understanding students does not equal continuous monitoring of students. A more prudent approach would be to integrate the minimum necessary information for the purpose of educational support to form a demand file that is modifiable, interpretable, and manually reviewable. It should be clarified that "dynamic needs profiles" described in this paper refer to aggregated patterns and trend indicators at the student group level (such as cohorts by grade, major, or internship placement), rather than profiles of identifiable individuals. Large models can assist counselors in thematic clustering common questions from anonymous questionnaires, class meeting feedback, internship weekly diaries, employment counseling, and policy Q&A, prompting students at a certain stage to focus on issues such as "job adaptation", "internship rights", "transfer to undergraduate and employment choices", and "value of grassroots positions". The contribution of anonymous feedback to these profiles is strictly limited to aggregate-level topic clustering and frequency analysis; no individual student's identity or responses are attributed in the profiling process. To preserve anonymity and ensure accuracy, students should be provided with periodic opportunities to review, correct, or withdraw information that has been aggregated into their group-level profiles, thereby maintaining both the integrity of the needs analysis and the right of students to control information associated with them. These cues are only clues for further understanding the student and cannot be used as a basis for ideological judgment or administrative punishment.

Thirdly, large models can drive the work of counselors from "activity records" to "process closed loops". The common problem with student work in higher vocational colleges is not the absence of activities, but the lack of review after the activities. Large models can assist in generating preparation sheets for heart-to-heart talks, lists of follow-up questions for class meetings, summaries of internship feedback, employment guidance review records, etc., making it easier for counselors to track "whether problems have been responded to, whether students have received support, and whether collaboration with professional teachers or enterprise mentors is needed next". The core of this mechanism is human-machine collaboration: AI is responsible for information organization and process reminders, while counselors are responsible for factual judgment, value guidance, and final decision-making (**Figure 1**).

## 4. Practice Path

First, build school-based knowledge bases and workflow templates to enhance the quality of policy consultation and daily educational preparation. Vocational col-

lege counselors often face repetitive inquiries about scholarships and grants, internship procedures, employment agreements, leave and return to school, conscription, transfer from junior college to undergraduate, dormitory management, etc. Schools can build a school-based knowledge base based on formal documents, generate draft policy Q&A and an index of processing procedures using domestic large models or on-campus platforms, and indicate the source of the documents, the scope of application, and the update time. For issues that cannot be confirmed or involve disputes over students' rights and interests, the system should prompt for manual processing. At the same time, counselors can consolidate common tasks into templates, such as templates for designing theme class meetings, templates for preparing heart-to-heart talks, templates for summarizing internship problems, and templates for employment guidance materials. The model is drafted according to the template, and the counselor is responsible for reviewing, modifying and using it.




**Figure 1.** Conceptual model of a large model assisting counselors in higher vocational colleges with precise ideological and political education.

Second, conduct development needs analysis around the growth stages of higher vocational students. Higher vocational students face different problems at different stages, such as freshman adaptation, professional learning, skills training, job internship and job hunting. The application of artificial intelligence should start from these stages rather than building student profiles in a general way. During

the freshman stage, focus on professional identity, learning style transition, and campus adaptation; During the professional learning stage, focus on skill training stress, course frustration, and career expectation adjustment; During the internship stage, focus on labor intensity, job discipline, interpersonal communication and rights protection; During the employment stage, focus on city selection, salary expectations, understanding of grassroots positions, and career development paths. The role of the large model is to help counselors identify common needs and organize materials, and counselors verify through conversations, observations, feedback from class committees, opinions from professional teachers, and feedback from enterprise mentors.

Third, develop lightweight digital tools to serve anonymous feedback, internship diaries, and employment information organization. The tool invocation and task collaboration capabilities of large models suggest that counselors' work does not have to be limited to direct conversational use. Schools can develop low-risk gadgets based on domestic models, on-campus servers, or compliant cloud platforms under the guidance of information technology departments. For example, for anonymous class meeting feedback, a locally running text classification script can be generated to categorize open-ended responses by topic; For the internship journal, a question tag table can be generated to distinguish between job fit, safety norms, labor rights, interpersonal communication, and professional identity; For employment information, a recruitment position summary table can be generated, extracting job responsibilities, competency requirements, work locations, salary ranges, and career paths. Such tools should prioritize processing anonymous or desensitized data, and the output results should only serve as supplementary materials for counselors' judgment and educational design.

Fourth, transform vocational education scenarios into ideological and political content resources. The feature of precise ideological and political education in higher vocational education lies not in more complex data technologies, but in embedding value guidance into practical training, internships and employment scenarios. Rail transit majors can design cases around safety norms, service awareness, job discipline and emergency response; Modern logistics can focus on the value of grassroots positions, supply chain collaboration and career development paths; E-commerce can focus on platform rules, integrity in business, consumer rights and responsibility for online public opinion. Large models can assist in retrieving policies, organizing industry norms, drafting cases and generating discussion questions, but the authenticity, value orientation and professional fit of the cases must be jointly checked by counselors, professional teachers and enterprise mentors.

Fifth, establish a negative list and manual review system. The Opinion emphasizes that schools, families and society share the responsibility for education [15], which also means that intelligent platforms can only serve as supporting conditions and cannot be the "technical subject" to replace the main body of education. Meanwhile, the Personal Information Protection Law of the People's Republic of

China requires that the processing of personal information follow the principles of legality, propriety, necessity and good faith [16], and the Interim Measures for the Administration of Generative Artificial Intelligence Services also put forward requirements for data security, content security and user rights protection of generative artificial intelligence services. As a result, AI shall not automatically determine the political stance of students, shall not impose differentiated sanctions on students based on labels, shall not substitute the results of emotion recognition for factual investigation, shall not input sensitive personal information into unapproved platforms, and shall not automatically make decisions on the disposal of high-risk students by the system. In matters involving rewards and punishments, commendations, financial aid determinations, psychological referrals, internship handling, and job recommendations, AI outputs can only serve as reference clues.

## 5. Conclusions

AI-enabled precise ideological and political education for counselors in higher vocational colleges has evolved from early material generation and intelligent question answering to a new stage of task processing assisted by large models. The rapid evolution of large models at home and abroad indicates that long text understanding, complex reasoning, multimodal interaction, tool invocation and intelligentization are becoming the directions of technological development. But in the work scenarios of counselors in higher vocational colleges in China, the application of technology must be subordinate to the fundamental task of fostering virtue and nurturing talent and the requirements of data security. Foreign models can serve as a reference for technological development, but specific practices should adhere to prioritizing domestic production, school-based controllability, institutional review and manual recheck.

It should be emphasized that the "precision" in precise ideological and political education does not mean technical control over students' thoughts, but rather more accurately identifying development needs, more appropriately providing educational support, and more continuously improving the process of nurturing people. Artificial intelligence can provide clues, organize materials, generate initial drafts and assist in review, but it cannot replace the educational judgment, emotional communication and responsibility assumption of counselors. Only by adhering to the guidance of counselors, the subjectivity of students, the minimum necessity of data, and human final decision-making, can AI empower precise ideological and political education improve efficiency while maintaining the warmth of education, and pursue precision while adhering to ethical boundaries.

Because this study proposes a conceptual framework, its effectiveness remains to be empirically verified. Future research could assess AI-assisted precise ideological and political education using indicators such as policy-answer accuracy, counselor workload, and students' perceived usefulness. These should be treated as provisional measures requiring validation through longitudinal case studies, controlled comparisons, and multi-stakeholder surveys.

## Acknowledgements

This research was supported by the Foundation for Education Science Planning Project in Guangzhou City (Grant No. 2026114542) and the Teaching Reform Project of Higher Education Institutions in Guangzhou City (Grant No. 2025YBJG078).

## Author Contributions

L.X.P. conceptualized the study, and drafted the original manuscript. Z.D.H. supervised the study and critically reviewed and edited the manuscript. L.Y.X conducted preliminary research and data collection.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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