International Education Forum, 2025, Volume 3, Issue 10
http://ojs.bbwpublisher.com/index.php/IEF
Online ISSN: 2981-8605
Print ISSN 3083-4902

Research on the Talent Training Path for Undergraduates in Public Security Colleges and Universities from the Perspective of Smart Education

Mengsheng Cai*, Yihua Lu

Jiangsu Police Institute, Nanjing 210031, Jiangsu, China

**Author to whom correspondence should be addressed.*

Abstract: Artificial intelligence (AI) drives the paradigm innovation of higher education. Based on the research on the integration of AI and undergraduate talent training in public security colleges and universities, this study analyzes the role of AI in improving the quality of undergraduate education and teaching. It includes four aspects: smart education helps enhance the quality of prospective police officers, facilitates the integration of teaching theories with grassroots police work, innovates intelligent assessment schemes, and improves teachers' digital and intelligent literacy. On this basis, the study explores the internal mechanism of smart education supporting talent training in public security colleges and universities, and systematically puts forward countermeasures for smart education to boost talent training in such institutions. These countermeasures mainly cover four dimensions: promoting the high-quality development of public security higher education via smart education, enriching the research system of smart education and teaching, gradually optimizing the smart education and teaching model, and establishing and improving the smart education evaluation system.

Keywords: Smart education; Public security colleges and universities; Undergraduate training

Online publication: November 14, 2025

1. Introduction

Smart education has become a research focus in the current field of education, and scholars from the United States, Canada, Japan, the United Kingdom, France, and other countries have conducted explorations to varying degrees. With the continuous development of the Internet of Things, educational informatization, and artificial intelligence, as well as the in-depth research on massive open online courses (MOOCs), micro-courses, flipped classrooms, and other models, smart education has evolved into a new form of educational informatization

development in China. China's Education Modernization 2035 proposes that "it is necessary to vigorously implement intelligent education with the help of information technology and truly take a path of educational informatization development with Chinese characteristics." Educational digital transformation serves as a crucial engine and innovative path to effectively promote the high-quality development of education [1]. Against the backdrop of the smart era, public security work is undergoing a profound transformation from "manpower-driven" to "data-driven" and "intelligence-driven." In view of this, it is essential to explore the undergraduate talent training mechanism in public security colleges and universities from the perspective of smart education, so as to better respond to the impact of artificial intelligence on public security higher education.

2. The role of smart education in improving the teaching quality of public security higher education

2.1. Enhancing the quality of prospective police officers

The application of smart education in public security education is conducive to expanding the theoretical depth of practical teaching reform in public security colleges and universities in the smart era. From teachers to students, classrooms to schools, and learning to daily life, artificial intelligence, as a key driving force, is profoundly reshaping every link of education [2]. By integrating smart policing with teaching model innovation and applying grassroots police work platforms and data to "smart classrooms", the professional capabilities of prospective police officers can be strengthened.

2.2. Promoting the integration of teaching theories with grassroots police work

By guiding grassroots police work with theories and feeding back grassroots police work into teaching, the unification of teaching supply and the needs of grassroots police work is realized. Smart education is a category with historical and developmental attributes [3]. Educators should innovate smart teaching models that serve grassroots police work, and take "cultivating the talents that grassroots police work needs" as the goal to advance the in-depth development of the "supply-side" reform in public security education.

2.3. Innovating intelligent assessment schemes

The proposal of the smart education concept presents both challenges and opportunities for teachers to reconstruct classrooms and realize smart teaching. Educators should carry out the assessment of intelligent teaching courses for grassroots police work, truly "keeping students busy" and "mobilizing students' enthusiasm." Smart education in higher education should return to the essence of "educating people" to meet students' development needs to the greatest extent [4]. This not only enables prospective police officers to deeply understand and master knowledge and skills but also helps cultivate top-notch innovative talents.

2.4. Improving teachers' digital and intelligent literacy

Educators should enhance the matching between the level of teachers and smart education, improve teachers' ability to integrate practical work with intelligence, and tap into the teaching capacity of grassroots police instructors in serving grassroots police work courses. Excellent traditional teaching methods, such as "preparing a good lesson" and "student-centered approach", should be incorporated into the new smart teaching model.

3. The internal mechanism of smart education supporting talent training in public security colleges and universities

3.1 Realizing precision and forward-looking in public security education

Smart education is a new educational ecosystem constructed for the purpose of developing people's high-level intelligent literacy [5]. Based on multi-source data such as the capability needs of grassroots public security organs, the evolution trend of public security technology, and the learning situation data of public security colleges, smart education can build a new talent quality model. In this way, the talent training goals of public security colleges and universities can be more precise. At the same time, through the "construction of knowledge graphs and simulation projects via AI technology", it helps teaching content to timely respond to the cutting-edge changes in police work.

3.2. Addressing the in-depth bottlenecks in traditional public security education

The traditional model has two core bottlenecks: outdated methods of "how to educate" and insufficient "transformation of educational achievements." Educational digital transformation is a complex, systematic project that cannot be separated from platform support [6]. By building a multi-stakeholder collaboration platform such as "Public Security University + Public Security Organs + Technology Enterprises", smart education creates a teaching development community integrating "teaching, competition, scientific research, tactics, and training." It designs a "step-by-step upward" mechanism for cultivating grassroots police work capabilities, so as to improve the conversion rate from "knowledge" to "practical police work."

3.3. Constructing "Digital Twin" scenarios for grassroots police work

Relying on artificial intelligence technology, smart education has changed the application in higher education [7]. Through systems such as virtual simulation experiment platforms and "AI Intelligent Police Q&A Platforms", smart education can provide students with a highly simulated grassroots police work environment. This effectively realizes the high integration of teaching and grassroots police work scenarios, allowing students to be in complex scenarios similar to grassroots police work. It helps students grow into compound police talents who "understand technology, master business, and excel in operations."

4. Countermeasures for smart education to support talent training in public security colleges and universities

4.1. Promoting the high-quality development of public security higher education via smart education

Artificial intelligence systematically replaces teachers in completing repetitive tasks such as paper marking, scoring, and curriculum design. This allows teachers to devote more time to personalized and creative teaching, thinking, and student guidance. Educators should deeply integrate the technological characteristics of the smart era with the law of "police teaching" for talent cultivation, and construct a three-dimensional research framework of "technology empowerment—model reconstruction—grassroots police work verification." Educational norms are era-specific [8]. For students, smart education can provide personalized guidance, real-time feedback, and support, creating favorable conditions for learners' independent learning.

4.2. Enriching the research system of smart education and teaching

Smart education research shows a trend of interdisciplinary evolution. Strengthening the application of smart education in public security colleges and universities can promote the gradual enrichment of the smart education theoretical system and enhance the depth of smart education theoretical research. In the relevant research on smart education, interdisciplinary, inter-university, and inter-institutional cooperative development has received increasing attention, which is of positive significance for the construction of "urban integration" in public security colleges and universities. Educators should provide diverse and high-quality new media resources, innovate the teaching methods of ideological and political courses, and enhance the affinity of course teaching [9]. With technologies such as artificial intelligence, big data, and virtual reality (VR), educators should build a three-dimensional training system consisting of "intelligent teaching platform + grassroots police work simulation scenarios + dynamic evaluation system."

4.3. Gradually optimizing the smart education and teaching model

The field of smart education mainly involves classroom teaching models, curriculum resource construction, research on software and hardware support, and development strategies. The practice of smart education has formed a pattern of diversified exploration nationwide, with typical cases emerging continuously [10]. Educators should learn from the smart education development models of domestic public security colleges and universities, sort out typical cases of smart technology application, break through the traditional linear training path of "theoretical teaching in public security universities + practical training at the grassroots level", and build a new training model featuring "online-offline integration, virtual-real scenario linkage, and resource sharing between colleges and public security organs." This model should respond to the needs of grassroots public security organs for smart policing talents in terms of data analysis, intelligent equipment operation, network security protection, and other capabilities. It should also identify pain points in the training process, such as outdated technical courses, single grassroots police simulation scenarios, and insufficient cross-departmental collaboration. Furthermore, educators should better establish a learner-centered concept, make full use of various modern technologies, and design teaching models that meet students' personalized needs and intelligent development.

4.4. Establishing and improving the smart education evaluation system

Educators should actively respond to the practical needs in smart management and smart evaluation. With the advent of the smart education era, there is an urgent need to cultivate compound talents with humanistic literacy, digital skills, and an innovative spirit [11]. In teaching, educators should adhere to the OBE (Outcome-Based Education) concept to solve the problem of "disconnection between school teaching and police work" in traditional training, so as to align talent training with the needs of smart police work and improve students' abilities in emergency response, technology application, and collaborative operations in complex intelligent environments. Educators should develop a "learning behavior analysis system" that generates quantitative reports on students' "digital literacy" and "problem-solving ability" based on data such as platform login duration, virtual training operation trajectories, and group discussion participation. Educators should strengthen research on smart evaluation and management to promote the continuous improvement of the comprehensive smart education evaluation system.

5. Conclusion

In the era of big data and "Internet + Education", smart education has become a new pursuit for the professional development of college teachers. Educational digitalization is not only an important part of building a powerful education country but also an important support for building a powerful education country [12]. This study comprehensively promotes the reform of teaching models through smart education, providing intellectual support for the modernization of education in public security colleges and universities. However, affected by factors such as the insufficient application of current smart education technologies in higher education and the rapid iteration of artificial intelligence technologies, this study still has much room for improvement in the construction standards of "digital twin" scenarios. Looking forward to the future, two key tasks should be focused on: 1) promoting the continuous iteration and evolution of the curriculum system, establishing a dynamic curriculum adjustment mechanism, and continuously transforming the latest achievements in police technology and grassroots police work cases into teaching resources; 2) strengthening the "smart" transformation of the teaching staff, and building a team of teachers with profound theoretical literacy, cutting-edge technical vision, and rich experience in grassroots police work.

Acknowledgments

We would like to thank the teachers who helped in the research process, as well as the students and other personnel who actively cooperated with me.

Funding

This research was supported by the Research Project on Higher Education Teaching Reform in Jiangsu Province (Project No.:2025JGYB193).

Disclosure statement

The authors declare no conflict of interest.

References

[1] Zhang YW, 2024, The Effectiveness, Direction, and Strategy of Educational Digital Transformation in the New Era. China Educational Technology, 2024(12): 130–134.

[2] Huang LL, 2025, Moving towards a New Stage of Smart Education: Exploring New Paths for Educational Reform. e-Education Research, 2025(7): 49–54.

[3] Zhong ZX, 2025, Research on Smart Education for the Future Educational Paradigm. e-Education Research, 2025(1): 5–12.

[4] Zheng YH, Wang YY, 2023, Technology Empowers High-Quality Educational Development: Value Connotation, Representational Form and Promotion Strategy. China Educational Technology, 2023(1): 118–126.

[5] Bie DR, Yang Z, 2024, The Connotation and Ecosystem Construction of Smart Education. Journal of Higher Education, 2024(12): 71–79.

[6] Cao PJ, 2025, Analysis on the Development Path of Global Representative Educational Platforms in the Intelligent Era. China Educational Technology, 2025(10): 71–78.

[7] Wu Y, 2025, Reconstruction of Smart Ecosystem in Higher Education. China Higher Education Research, 2025(5): 30–37.

[8] Liu YH, 2025, Citizens' Right to Smart Education. Journal of National Academy of Education Administration, 2025(5): 56–67.

[9] Zhao YJ, 2025, Educational Digital Intelligence Empowers the Construction of an Educational Power. China Educational Technology, 2025(10): 1-6 + 14.

[10] Pan JW, 2025, Practice Progress and Future Response of Smart Education under the Background of Digital Transformation. e-Education Research, 2025(6): 49–56.

[11] Li J, 2025, Innovation Path of Discipline System, Curriculum Setting and Talent Training Mode for the Construction of Digital Humanities Major in Colleges and Universities under the Background of Smart Education. Shanxi Archives, 2025(3): 110–112 + 116.

[12] Qin YC, Liu GP, 2025, How Educational Digitalization Realizes Educational Strength. Chinese Journal of Distance Education, 2025(9): 89–106.