

# Research on the Application of Artificial Intelligence Technology in Emergency Police Course Teaching

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**Abstract:** Artificial intelligence technology creates an intelligent learning environment for emergency police teaching and provides a modern education model. It is an innovation of traditional teaching tools and methods, improves the quality and efficiency of teaching, realizes teaching intelligence, and promotes the progress and perfection of teaching mechanism. In order to ensure the effective application of artificial intelligence technology in the teaching of emergency police courses, it is necessary to establish a scientific and reasonable technology application framework, including course design, resource platform, teaching evaluation, etc., to realize the diversification and intelligence of emergency police teaching content, enrich teaching resources, and carry out self-adaptive adjustment of teaching content according to different needs of students. Real-time updates and optimizations based on students' learning status. In addition, it is necessary to establish accurate teaching evaluation methods, timely feedback on students' learning situation and learning effect, timely adjustment of teaching design according to the feedback, and finally form a virtuous circle of teaching.

## 1. Introduction

With China gradually integrating into the wave of informatization and globalization, the socio-economic development has been rapid. However, the rapid development of the economy is often accompanied by complex social problems, and social security and stability face potential hidden dangers and huge challenges. Especially in recent years, domestic mass incidents and terrorist attacks have occurred frequently, which has sounded the alarm for emergency policing, developed and improved emergency policing teaching, and cultivated high-quality emergency policing talents. In this social context, in order to better meet the demand for emergency police personnel in society, the higher education should actively integrate artificial intelligence technology into emergency police course teaching, draw on its application experience in other fields of education, propose effective plans for the organic integration of artificial intelligence technology into emergency police course teaching, and further promote the progress of emergency police teaching towards a more technological and practical direction.

## 2. The necessity of applying artificial intelligence technology to emergency police course teaching

(1) The integration of artificial intelligence technology into emergency police teaching is a teaching concept innovation and practical exploration.

The theoretical teaching of emergency policing courses covers emergency management systems, emergency management actions, and emergency plans, etc. Practical teaching includes emergency first aid, emergency response, virtual simulation experiments for emergency drills and so on. Against the backdrop of the country's strong advocacy for emergency management education, emergency management teaching has flourished. However, there are some deficiencies in the teaching of emergency police courses in China, which are difficult to meet the needs of cultivating emergency police talents. The main shortcomings are that the teaching content is too theoretical,

lacking practical operations and case analysis, which have become obstacles to training emergency police talents. In order to improve the teaching quality and effect, the introduction of artificial intelligence technology has become a reasonable solution. Under the background of science and technology informatization, the application of artificial intelligence technology in emergency police courses has become an inevitable trend, and it is also a key means to improve the actual level of public security work. Artificial intelligence technology can efficiently process massive data. It can provide and integrate a large amount of information from Internet databases according to the specific needs of teachers, and output information accurately through rapid and efficient screening, classification, analysis and processing of information.<sup>[1]</sup> This makes the teaching content comprehensive, substantial, and closely integrated with teaching needs. At the same time, it can significantly save teachers the time they spend collecting information during lesson preparation and optimize the allocation of time resources. By utilizing artificial intelligence technology to optimize algorithms and achieve intelligent analysis of big data, valuable practical cases are extracted based on course content, providing materials and support for timely and targeted teaching, so that students can realize the social value and significance of knowledge theory from the real cases around.

(2) Artificial intelligence technology is a new teaching method that emphasizes learning as the main focus and applying what is learned. It can bring personalized teaching experience to each student. Based on the specific learning situation and interest preferences of students, it intelligently pushes teaching resources that are suitable for them, making teaching more directional and targeted, thereby achieving personalized teaching, maximizing students' learning enthusiasm and initiative, and stimulating their potential. Artificial intelligence technology can also provide a more objective approach for teaching evaluation. Artificial intelligence evaluation does not have subjectivity, but analyzes the learning and life attitudes and emotions of each student through their academic performance, disciplinary performance, and classroom performance, timely grasping their current situation, and providing reference for teachers to adjust teaching strategies and methods. Artificial intelligence technology provides new ideas and methods for teaching, and its advantages in the field of education are comprehensive. The rational application of artificial intelligence technology in education is the trend of The Times. Artificial intelligence technology can simulate real-life scenarios through AR (augmented reality) and VR (virtual reality) technologies, providing a realistic emergency environment to assist students in practical operations and drills. It can increase students' social experience and professional knowledge, update their thinking methods, improve their proficiency and agility in law enforcement, enhance their ability to solve complex problems, enhance their interest and motivation to continue learning related professional skills, and stimulate their enthusiasm to participate in emergency police work.<sup>[2]</sup>

### **3. The role of Artificial Intelligence Technology in Emergency Management Course Teaching**

(1) Artificial intelligence technology creates an intelligent teaching environment. Introducing artificial intelligence technology into emergency police courses can provide students with a better learning and practical environment.<sup>[3]</sup>

(2) Building an intelligent emergency response plan system using artificial intelligence technology. Artificial intelligence technology can help students develop and implement emergency plans, predict possible emergencies, and provide reliable and accurate basis for emergency plans through big data analysis and simulation of reality.

(3) Artificial intelligence technology provides an information-based decision support system. Artificial intelligence technology can automatically analyze and process various types of information, provide fast and reasonable suggestions, help students learn the knowledge, theory, and experience of emergency management, and continuously improve their ability to face emergency events in practical operations.

(4) Artificial intelligence technology has achieved virtual experimental training teaching. By using virtual reality technology to simulate on-site scenarios, students can have an immersive experience, carry out emergency response for emergencies, enhance their ability to respond to

various cases, and help them better grasp the knowledge and skills of emergency police courses.<sup>[4]</sup>

(5) Artificial intelligence technology has achieved reasonable teaching evaluation. Application 5: AI technology achieves reasonable teaching evaluation. Compared with the traditional way of learning evaluation, the adaptive evaluation system of artificial intelligence technology can accurately evaluate students' learning links, learning processes and learning effects in real time, and it is more targeted and practical.

(6) Artificial intelligence technology has achieved long-term repeated sustainable learning. Students can learn relevant knowledge and skills through the internet at any time and place, even during work, with a stronger timeliness of learning.

#### **4. The characteristics of “artificial intelligence+course teaching”**

(1) Personalized learning: Artificial intelligence technology can provide personalized learning resources and teaching plans according to students' learning habits, abilities and progress to meet the individual needs of different students.

(2) Intelligent tutoring: The artificial intelligence technology tutoring system can provide 24-hour learning support, help students review and consolidate knowledge points after class, and even recommend appropriate learning strategies through intelligent analysis of students' learning behaviors.

(3) Automated Assessment: Artificial intelligence technology can automatically evaluate student assignments and exams, providing immediate feedback and allowing teachers to focus more on teaching and student guidance.<sup>[5]</sup>

(4) Intelligent teaching assistance: Artificial intelligence technology teaching assistants can help teachers manage the classroom, such as attendance tracking, learning progress monitoring, etc., so that teachers can carry out teaching management more efficiently.

(5) Innovation in teaching content: Artificial intelligence technology can create interactive and immersive teaching content, such as virtual reality (VR) and augmented reality (AR) applications, to improve the fun and effect of learning.

(6) Predictive analysis: Through the analysis of students' learning data, artificial intelligence technology can predict students' performance and behavior trends and help teachers adjust teaching strategies in time.

(7) Assisted Special Education: Artificial intelligence technology can help students with special needs, such as hearing impaired students through speech recognition and synthesis technology, or visually impaired students through visual assistive technology.

(8) Language learning: Artificial intelligence technology language learning tools can help students learn new languages by providing instant feedback on pronunciation and grammar through speech recognition and natural language processing technologies.

(9) Knowledge Discovery: Artificial intelligence technology can help students and faculty discover new learning resources and research areas, and recommend reading materials by analyzing large amounts of literature and data.

(10) Teaching decision support: AI can provide data support for education administrators to help them make more reasonable teaching resource allocation and curriculum decisions.

(11) Educational equity: Artificial intelligence technology helps to narrow the gap in educational resources and provide high-quality educational resources to students in different regions through online learning platforms and distance education tools.

(12) Teacher professional development: Artificial intelligence technology can provide resources for teacher training and professional development to help teachers master new teaching methods and technologies.

(13) Improvement of learning motivation: Through gamified learning and other methods, artificial intelligence technology can increase the interest of learning and improve students' learning motivation.

(14) Intelligent classroom management: Artificial intelligence technology can monitor the classroom environment, such as light, temperature, etc., and automatically adjust to create the best

learning environment.

The application of artificial intelligence technology in the field of education is continuing to expand, and it has the potential to revolutionize traditional education models and bring more efficient and intelligent educational experiences to students, teachers and educational institutions.

## **5. The Implementation Method of Artificial Intelligence Technology in Emergency Police Course Teaching**

(1) Apply artificial intelligence technology to the construction of emergency information processing system. With the help of advanced data mining and analysis functions, various kinds of emergency risk information collected are processed to provide strong data support for reasonable emergency decision-making.<sup>[6]</sup>

(2) Apply artificial intelligence technology to simulation teaching in emergency situations. The application of artificial intelligence technology through the simulation of emergency situations, case analysis and other forms, pay attention to students' practical operations and case studies, explore and solve practical problems, so as to improve students' ability to cope with emergency situations.

(3) Apply artificial intelligence technology to remote intelligent teaching. Artificial intelligence technology closely combines emergency police courses with information and intelligent teaching, develops an online learning platform, realizes the transformation of multimedia teaching in the classroom into remote video teaching, and can carry out online Q&A, online examination and other services.

(4) Use artificial intelligence technology in the practical training of professional skills. For example, the public security comprehensive information application system, criminal case investigation training system and other professional teaching and training systems provide students with emergency situation simulation training, and provide information support for actual combat teaching.

## **6. Application Guarantee of Artificial Intelligence Technology in Emergency Police Course Teaching**

In the introduction of artificial intelligence technology into emergency police course teaching, a series of application guarantee measures must be taken to ensure the effective application of technology and the smooth progress of teaching.

(1) Establish a reasonable technical application framework. Without a framework, technical theory will lose its generality and regularity. The technical framework of artificial intelligence covers various aspects such as course design, resource platform and teaching evaluation. With the integration of artificial intelligence technology, not only to achieve the diversity and intelligence of emergency police teaching content, so that teaching resources can be more abundant, but also according to the different needs of students, teaching content adaptive adjustment, real-time update and optimization according to the learning status of students. Moreover, artificial intelligence technology can also provide accurate teaching evaluation methods, forming a virtuous circle of teaching, for example, automated homework correction and progress tracking, helping teachers to timely understand students' learning status and provide teaching guidance for students' specificity.

(2) Use appropriate platforms for operations. Artificial intelligence technology is diverse, not every technology meets the needs of teaching and requires the selection of appropriate artificial intelligence technology to meet the needs of teaching. A suitable technology platform needs to be established to support the integration and integration of AI technology applications. In addition, there is a need to focus on the usability and ease of use of the technology to ensure that teachers and students can easily use AI technology for teaching and learning.<sup>[7]</sup>

(3) In order to ensure the smooth application of artificial intelligence technology into emergency police courses, it is also necessary to conduct adequate technical testing, formulate corresponding teaching and training plans, set up corresponding expert technical support teams, and strengthen the protection of students' privacy and data security.

## 7. Conclusion

The application of artificial intelligence technology in the teaching of emergency police courses has broad prospects and important practical significance. It can not only improve the efficiency and quality of teaching, but also cultivate students' practical ability and emergency response ability, provide important talent support for public security organs, and have positive significance for maintaining national security and stability.

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