

The use of AI in policing

Zhang Ying¹, Chuluunbat Sharkhuu²

Ikh Zasag International University, Mongolia

¹Ph.D.candidate, ²Corresponding Author

Abstract

The rapid advancements in AI technology are transforming modern policing. From predicting crime to implementing smart surveillance, and from in-depth data analysis to supporting law enforcement decisions, the widespread use of AI has greatly boosted police efficiency, but it also raises a bunch of legal and ethical questions. Finding the right balance between tech innovation and protecting citizens' rights has become a key topic in the process of legalizing policing in the digital age.

Keywords

Crime prevention, Policing system, AI.

1. Introduction

This paper aims to comprehensively summarize the core trends of the application of AI technology in the field of policing, deeply analyze the technological leap and social welfare enhancement caused by it, and examine the legal dilemmas, ethical issues and technical difficulties that have emerged. With the help of case studies and in-depth analysis from multiple perspectives, this paper strives to provide theoretical support for the harmonious coexistence of technological innovation and public safety management, and contribute strategic insights to the future development blueprint of the deep integration of AI and policing. With the continuous high degree of integration of AI and police work, it is an unstoppable trend and a test of the law. In the future, AI technology will be better and more standardized in police work.

2. A technical landscape of AI policing applications

2.1. Crime prediction and risk prevention and control

The AI platform can gather diverse data like historical crime records, population migration trends, and social media activity to create crime hotspot maps and build risk warning models. For example, the PredPol system adopted by the Los Angeles police uses machine learning to predict crime hotspots, increasing patrol efficiency by 30%. However, this kind of data-driven prediction mechanism might deepen social biases, labeling certain groups as "high risk."

2.2. Intelligent monitoring and identification

In terms of public safety measures, technologies like facial recognition, gait tracking, and license plate recognition have become widespread. The Metropolitan Police in London has implemented a real-time facial recognition system that can pull up information on fifty million faces in the blink of an eye, providing strong support for catching fugitives. However, incidents like the wrongful arrest in Johannesburg, South Africa in 2020 showed that the technology had an error rate as high as ninety percent, revealing the hidden risks that technical flaws pose to human rights protection.

2.3. Intelligent law enforcement and decision-making assistance

In the field of traffic management, the use of high-tech methods like illegal capture systems and electronic evidence analysis platforms is pushing law enforcement processes towards automation. Taking Shenzhen, China as an example, "AI traffic police" can efficiently handle twenty thousand violations every day, which is twenty times more efficient than manual operations. However, we can't ignore the "black box" logic behind algorithmic decisions that might hinder individuals' rights to effectively plead their case.

3. Legal risk analysis of AI policing

3.1. The conflict between the expansion of power and procedural justice

Artificial intelligence technology gives police the power to cross temporal and spatial boundaries: surveillance cameras capture people's behavior around the clock, and big data analysis technology can trace back an individual's actions for months. This almost "all-seeing surveillance" power model directly infringes on the right to privacy guaranteed by Article 8 of the European Convention on Human Rights. In 2019, Sweden's data protection agency issued a fine to a school for using a facial recognition system, citing its violation of the principle of proportionality.

3.2. Algorithmic bias and violations of the right to equality

The algorithms can sometimes make biases in the training data worse. The risk assessment system COMPAS in the U.S. misjudges Black defendants' recidivism risk at twice the rate of White defendants, which shows the hidden traits of algorithm discrimination. When law enforcement decisions are based on biased algorithm frameworks, the equal rights guaranteed by the Constitution could end up being sacrificed to tech tyranny.

3.3. The rule of law dilemma of attribution of responsibility

The self-driving characteristics of AI make it hard to attribute responsibility: looking back to 2021, when Paris police used drones to disperse protesting crowds, it sparked a lot of controversy. However, it's tough to pin down who should take the blame—whether it's the tech providers, the operators, or the decision-makers. This definitely poses a challenge to the traditional principle of "accountability matches authority" in administrative law.

4. The path of rule-of-law governance for AI policing

4.1. Build a "technical due process" framework

(1) Algorithm Transparency Guidelines: This code emphasizes the disclosure of the core logical framework of AI systems, data access and their accuracy measurements, for example, the EU Artificial Intelligence Act clearly states that for high-risk AI applications, detailed technical documentation must be submitted for review; (2) Implement a dynamic audit and supervision model: Through the establishment of an independent third-party organization, the application of artificial intelligence in the field of policing is periodically reviewed for compliance to ensure that its algorithm logic is always in sync with the legal provisions.

4.2. Improve the system of rights and remedies

It's about the right for citizens to ask for explanations about algorithms, especially when AI decisions significantly impact their personal interests. Individuals should have the ability to request a manual review process. The approach in Canada's "Automated Decision Directive" — requiring government-run AI systems to allow for human intervention — gives us a valuable reference.

4.3. Promote a collaborative governance model

Build a new model of collaboration between the "government, businesses, and the public": tech companies must strictly follow the rules of the Personal Information Protection Law and anonymize data; the police should come up with a list of prohibited AI applications, clearly banning predictive uses based on race, religion, and other factors; and the public can take part in hearings to strictly review algorithm ethics.

5. Conclusion

The deep integration of AI technology with police work is not only an irreversible trend under the wave of technology but also a tough test for the construction of a law-based civilization. The boundaries of technology empowerment must be clearly defined by law, and the inner logic of algorithm operation needs to align with the pursuit of fairness and justice. Only by establishing a regulatory system with clear boundaries between responsibility and power, seeking a flexible and robust balance on the scales of efficiency and fairness, security and freedom, can artificial intelligence transform into a powerful engine for the advancement of modern police civilization, rather than a runaway "beast."

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lkh Zasag International University.

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