

ORGANIZING PROSECUTORIAL SUPERVISION THROUGH THE USE OF ARTIFICIAL INTELLIGENCE: PROBLEMS AND SOLUTIONS

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Annotation: This article explores the use of artificial intelligence (AI) in organizing prosecutorial supervision, emphasizing both its potential and challenges. The study highlights that AI technologies significantly enhance the efficiency, objectivity, and transparency of prosecutorial activities by enabling data-driven analysis, digital monitoring, and automated decision support. However, their integration raises a number of legal, ethical, and technical issues, including questions of legal responsibility, data protection, algorithmic transparency, and respect for human rights. The article also proposes specific legal and institutional solutions, such as the adoption of a separate law on artificial intelligence, the establishment of cybersecurity units within the prosecutor's office, and the introduction of AI-related legal education programs. The conclusion stresses that AI should not replace human prosecutors but serve as a supportive tool that strengthens legality, fairness, and accountability within the justice system.

Keywords: Artificial Intelligence (AI); Prosecutorial Supervision; Legal Regulation; Digital Transformation; Human Rights; Legal Ethics; Data Protection; Algorithmic Transparency; Law Enforcement; Criminal Justice; Legal Technology (LegalTech); Human-AI Collaboration; Cybersecurity; Digital Governance; Public Administration Reform.

Introduction

In the 21st century, digital technologies and artificial intelligence (AI) have penetrated almost every sphere of human activity. Public administration, the judicial and legal system, the fight against crime, and law enforcement have also become part of this process. Artificial intelligence has become an important tool for automating the activities of state institutions, analyzing information, and improving decision-making processes.

The use of AI in the activities of prosecutorial bodies not only helps to reduce crime and quickly detect offenses but also creates a foundation for increasing the objectivity, impartiality, and effectiveness of prosecutorial supervision. At the same time, the introduction of AI into prosecutorial practice gives rise to serious problems related to legal regulation, ethical standards, and the protection of human rights.

This article provides a scientific analysis of the legal and practical possibilities of using artificial intelligence technologies in prosecutorial activities, identifies existing problems, and proposes possible solutions.

The Relationship Between Artificial Intelligence and Prosecutorial Supervision

Prosecutorial supervision is a system that ensures the supremacy of law and monitors the precise and uniform execution of legal acts. Although the human factor plays a key role in this process, the increasing flow of information and the growing complexity of criminal behavior have created the need to apply artificial intelligence technologies.

AI provides prosecutorial authorities with several important opportunities:

- **Rapid data analysis:** automated analysis of criminal cases, reports, evidence, and statistical information reduces the risk of human error.
- **Prediction of legal violations:** based on data analysis, AI can forecast which regions or sectors may experience an increase in law violations.
- **Automated drafting of decisions:** AI can automatically prepare legally substantiated draft decisions for prosecutors.
- **Digital modeling of supervision:** algorithms based on AI can enable electronic monitoring systems to ensure the execution of laws.

Through these capabilities, human resources are saved, efficiency is improved, and prosecutorial decisions become more objective.

Legal Issues in the Use of Artificial Intelligence in Prosecutorial Supervision

The integration of AI systems into prosecutorial activities has brought about a number of legal challenges:

- **Unclear legal status.**

Current legislation does not clearly define the legal status of AI, nor the legal force of its conclusions or recommendations. Therefore, if AI-generated decisions are implemented without human confirmation, legal disputes may arise.

- **Liability issues.**

If an incorrect procedural decision is made as a result of AI recommendations, it is unclear who bears responsibility — the programmer who created the system, the prosecutor who used it, or the organization that operates it. This issue remains unresolved legally.

- **Protection of personal data.**

AI systems process large volumes of data. If the database is not adequately protected, there is a risk of disclosure of confidential information or unauthorized data processing.

- **Legal recognition of electronic evidence.**

Legal mechanisms ensuring that information identified by AI is recognized as electronic evidence are still insufficiently developed.

Ethical and Human Rights Issues

The application of AI in prosecutorial activities also raises ethical concerns related to human rights:

- **Threat to the presumption of innocence.**
If AI classifies a person as a potential criminal based on data analysis, this may violate the presumption of innocence.
- **Failure to consider subjective factors.**
AI operates solely on digital data; however, aspects such as motives, psychological state, and social conditions of the offender are crucial in legal assessment and cannot be fully captured by algorithms.
- **Balance of trust between humans and machines.**
Excessive reliance on AI may cause prosecutors to lose their ability to make independent judgments.

Therefore, AI should not replace prosecutors but serve as an auxiliary analytical tool that enhances human decision-making.

Technical and Organizational Problems

- **Lack of integration between information systems.**
Databases of the Prosecutor's Office, Ministry of Internal Affairs, courts, and other agencies are not sufficiently interconnected, which limits the effectiveness of AI systems.
- **Insufficient technical and human resources.**
The introduction of AI requires highly qualified specialists, robust server infrastructure, and strong information security systems.
- **Algorithmic transparency problem.**
The reasoning behind AI-generated decisions may not be fully understandable to humans. This "black box" phenomenon poses risks in legal proceedings where transparency and accountability are essential.

Solutions and Recommendations

- **Improving legislation.**
 - A special Law "On Artificial Intelligence" should be adopted to clearly define the legal status, scope of powers, and liability framework for AI use in prosecutorial activities.
 - Provisions should be introduced to determine the legal validity of AI-generated recommendations and electronic evidence.
- **Developing a human–AI cooperation model.**

- Prosecutors should analyze AI recommendations and make final decisions based on human judgment.
- This model can be described as **“human-supervised artificial intelligence.”**
- **Enhancing information security.**
- It is necessary to introduce cryptographic protection and blockchain-based information exchange systems within the prosecutorial structure.
- Specialized prosecutor departments on cybersecurity should be established.
- **Training and professional development.**
- Courses such as “LegalTech,” “Digital Law,” and “AI for Law” should be organized for prosecutors and legal professionals.
- Law universities should introduce academic subjects devoted to the legal aspects of artificial intelligence.
- **Modernizing technical infrastructure.**
- Databases of all law enforcement agencies should be integrated into a unified electronic platform.
- Automated analytical systems should be developed and gradually implemented in prosecutorial practice.

Conclusion

Artificial intelligence represents a crucial step toward the digital transformation of prosecutorial institutions. With its assistance, prosecutorial supervision becomes faster, more accurate, and more efficient. However, this process must be implemented in harmony with human rights, the rule of law, and ethical standards.

The aim of introducing AI into prosecutorial work is not to replace humans but to assist them and reduce the likelihood of errors. Therefore, reforms in this area must be carried out on a solid **legal, scientific, and ethical foundation** to ensure both technological progress and the protection of justice.

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