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INNOVATIONS IN LAW ENFORCEMENT EDUCATION: THE IMPACT OF ARTIFICIAL INTELLIGENCE TOOLS

Specialized education for law enforcement is a critically important component of effective policing. It equips officers with the knowledge, skills, and mindset necessary to address complex situations, protect communities, and uphold the law. Integrating artificial intelligence (AI) tools into specialized law enforcement education provides professionals with the skills to utilize modern technologies, fostering a more effective approach to crime prevention and public safety. Investment in specialized training ensures that officers are well-prepared to meet the challenges of modern policing. Investments in artificial intelligence (AI) ultimately lead to safer communities and a more just society. The article examines AI technologies for modernizing specialized law enforcement education, including both classroom-based, personalized learning and self-study, as well as their subsequent application in professional activities. Particular attention is given to the importance of specialized training for law enforcement professionals. The role of AI technologies and tools in modernizing education for Law Enforcement is emphasized as well. The paper analyses the ways AI can be used to improve special training of would be policemen. The paper explores AI perspectives and addresses risks and challenges associated with implementing AI technologies and tools in special law enforcement training.

The present paper reflects the authors' views on future directions for AI in education, particularly in law enforcement sphere suggesting possibilities and risks of AI in law enforcement professional training.

Key words: *AI tools, law enforcement, specialized training, AI policing.*

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Relevance of the study. It is generally recognized that at present, in police activity, it is not the notorious workforce that is valued, but an employee with a high level of education, upbringing, professional training, the combination of which constitutes professionalism. Law enforcement education plays a vital role in preparing individuals for careers in policing, security, and public safety. It provides fundamental knowledge about criminal justice systems, legal frameworks and law enforcement procedures and provides officers with the necessary knowledge, skills, and abilities to navigate the complexities of modern policing. Training programs often combine classroom instruction with practical exercises to ensure officers can handle real-world challenges effectively. Subjects such as criminology, ethics, investigative techniques, and community relations are central to the curriculum. These programs aim to enhance officers' understanding of the social context in which they work and the impact of their actions on communities. Law enforcement education also emphasizes cultural competency, helping officers build trust within diverse communities. Many programs focus on mental health awareness to equip officers with tools for personal well-being and effective engagement with the public. Continuous professional development is encouraged, allowing law enforcement personnel to adapt to legal and societal changes. Ultimately, education in this field strengthens the justice system and enhances public safety.

The integration of modern technology such as cybersecurity and data analysis, reflects the evolving demands of the profession. Artificial Intelligence (AI) platforms and applications stimulate and foster soft skills that are of utmost importance for would-be lawyers and policemen. These soft skills are critical thinking, decision-making, and problem-solving skills and are crucial for modern policing.

Recent publications overview. In recent years, artificial intelligence (AI) has rapidly become integrated into the education system, including higher education, and is gradually transforming the entire paradigm of learning. Concepts such as "virtual reality," "virtual technologies," "artificial intelligence," and "ChatGPT" have become commonplace in the educational environment, gradually becoming standard elements of the educational space.

Both domestic and international researchers have shown significant interest in these developments. A substantial number of scientific works are dedicated to AI in education, and interest in the topic is not diminishing. On the contrary, each year sees an expansion in the range of subjects addressed within this area. Particularly pressing is the issue of integrating AI into legal education, considering the growing role of technology in the modern legal field.

The works of domestic specialists cover various aspects, such as the role of AI in education, its potential applications, advantages, and disadvantages, as discussed by M. Moskalyuk, N. Moskalyuk, and A. Len. The history and prospects of AI development and implementation are explored by M. Jefremov and Ju. Jefremov. Current trends in the implementation of AI in education and its development prospects are discussed by A. Androshchuk and O. Maluga. The role of AI in the professional training of specialists across various fields is addressed by S. Derevyanko. The educational potential of AI for independent student work and the use of web technologies in the learning process are examined by V. Krasnopolskiy and others.

International researchers have also shown considerable interest in this topic, addressing various aspects of AI in education. Among them are A. Azoulay, W.J. Clancey, J. Haugeland, Y. He, M. Jing, M. Laanpere, K. Pata, P. Normak, H. Põldoja, R. Luckin, W. Holmes, M. Griffiths, L.B. Forcier, I. Roll, R. Wylie, V. Mayer-Schönberger, K. Cukier, and many others.

Despite the significant attention and numerous scientific works devoted to the topic, the issue of AI in education remains highly relevant.

Thus, the main **purpose of the article** is to find out the ways the AI can transform law enforcement education. To reach this goal we have to examine the AI tools to educate police students successfully and highlight the innovations that we can face in practical usage.

Discussion

1. Importance of specialized training for law enforcement professionals

Specialized training is crucial for law enforcement professionals to effectively address the diverse and evolving challenges they face. It goes beyond basic academy training, providing officers with in-depth knowledge and skills in specific areas of policing. It equips officers with the expertise needed to handle diverse scenarios such as cybercrime, terrorism, human trafficking, and mental health crises. Unlike general training, specialized programs focus on specific skill sets, such as forensic investigation, crisis negotiation, or crowd control, enabling officers to excel in niche areas. This targeted knowledge enhances efficiency and effectiveness in resolving incidents that require advanced techniques. Specialized training also fosters a deeper understanding of emerging threats, such as organized crime networks or online fraud, ensuring law enforcement remains one step ahead. Specialized training equips officers with the latest techniques and technologies, improving their operational effectiveness and safety.

The integration of AI into law enforcement is transforming the professional skill set required for future police officers. AI technologies, such as facial recognition, predictive analytics, and crime mapping, are becoming essential tools in modern policing. For would-be policemen, developing proficiency with these technologies is increasingly critical to performing their duties effectively. Successful police officers of the future will need a blend of traditional skills and new AI-related competencies. Critical thinking, problem-solving, and effective communication remain essential for building trust within communities and navigating complex situations. Additionally, officers must develop a strong understanding of AI concepts, including data privacy, algorithmic bias, and ethical considerations. This knowledge will enable them to critically evaluate AI-driven decisions and ensure their responsible and equitable use.

AI in law enforcement education is able to prepare officers for a technology-driven future. AI tools, such as predictive policing systems, facial recognition software, and crime data analytics, are increasingly integrated into modern policing strategies. Law enforcement education must adapt to include AI-related training, ensuring that future officers are proficient in using these tools effectively and ethically. By incorporating AI, educational programs can simulate real-world scenarios, allowing trainees to analyze crime patterns, anticipate risks, and make data-informed decisions.

AI-powered platforms also enhance training efficiency through virtual simulations, offering interactive experiences in areas like crisis management or tactical operations. However, understanding AI's limitations, including issues of bias, accountability, and privacy, is crucial to fostering responsible use. This calls for a curriculum that balances technical knowledge with ethical considerations, equipping officers to navigate complex moral dilemmas. AI also plays a role in administrative functions, enabling officers to focus more on community engagement and proactive crime prevention. Educators can leverage AI to personalize learning, tailoring training materials to individual strengths and areas for improvement.

2. The Role of AI Technologies and Tools in Modernizing Education for Law Enforcement

The integration of AI into law enforcement education is revolutionizing traditional approaches to training, skill development, and professional preparation. Key innovations could be divided into several interconnected areas:

- AI for classroom learning with AI-powered simulations and Virtual Training;
- AI for personalized learning;
- AI for self-study.

The first and the greatest innovation that AI can suggest is tools for classroom activity as judging from the personal experience the best results we get from off-line education. Here, AI can suggest realistic scenarios that are AI-powered virtual reality (VR) and augmented reality (AR) technologies that simulate high-pressure, real-world situations, such as crisis negotiations, active shooter scenarios, or crowd control for classroom discussion and decision-making. In class

teachers may use intelligent platforms to promote collaborative problem-solving or integrate gamified elements to make ongoing education engaging and effective. The great idea is to use AI chatbots to simulate interactions with diverse community members, including victims, suspects, and witnesses, to build cultural competence and empathy. Trainees are exposed to AI tools used in law enforcement, such as crime mapping and predictive policing.

One of the most needed skills for policemen nowadays are the so-called soft skills that imply decision-making and critical thinking skills. Their development may be perfectly done with the help of AI tools at STEAM lessons [12]

Then, AI is indispensable for personalized learning as AI systems assess individual skills and tailor educational content to address specific weaknesses or knowledge gaps and adjust the pace and depth of instruction to fit the trainee's needs, maximizing learning efficiency.

Moreover, AI could be successfully used for self-study. In the context of remote learning, particularly during martial law or pandemic situations as we saw with COVID-19, when many students study abroad or are unable to participate in face-to-face learning, one of the best solutions is completing independent assignments with the help of AI. All academic disciplines include tasks designed for independent work. AI tools assist in basic, specialized disciplines as well as language learning. Here we can find various tasks starting from data search to essay writing, with AI providing instant feedback on clarity, accuracy, and legal terminology [1, c. 594-595].

AI could also suggest other areas for learning as well, i.e. ideas for professional development, tools for decision-making training, personal assessment, collaborative learning and many others which could be used either independently, individually or as classwork and complement each other perfectly.

3. AI in Policing

The use of AI in the police has become one of the key factors in subsequent activities. AI helps the police automate routine tasks, analyze large amounts of data, improve forecasting and increase the responsiveness of response.

Natural Language Processing (NLP). AI is used for natural language processing (NLP) in police agencies, which enables the analysis of rich text data, including social media posts, emails, and recorded speech. The goal is to identify potential threats or criminal activity embedded in these sources. In addition, this technology facilitates the recording of interrogations, streamlining investigative processes [10].

Facial Recognition Technology. Another significant advancement in AI is the use of facial recognition technology in police agencies around the world. This technology can both identify suspects in crowded areas and search for missing persons [6].

Automatic number plate recognition. Automatic number plate readers equipped with AI quickly identify and register number plates on vehicles, both while driving and when parked. This technology can be used, for example, to search for stolen vehicles, to track suspects, and to enforce traffic laws [10].

Real-time decision support. This is a process aimed at using modern technologies, data and analytics to ensure prompt and effective response to incidents, improve public safety and optimize the work of police departments. AI systems use surveillance cameras, sensors, drones and other devices to promptly collect information, apply geolocation and monitoring systems, analyze the received data and, having processed a large amount of data, predict a crime and help make a decision in real time [11].

Cybercrime Investigations and AI. Artificial Intelligence (AI)-powered cybercrime investigation is a modern approach that involves the use of machine learning and data analytics technologies to detect, prevent, and investigate crimes committed in the digital environment. AI has the potential to significantly improve the efficiency and accuracy of law enforcement agencies facing the growing complexity of cyber threats. AI algorithms provide invaluable assistance in cybercrime investigations by closely examining network behavior and identifying anomalous patterns that indicate illegal activity [14, c. 38].

Enhanced Situational Awareness. This innovative system accelerates tactical decision-making on the spot, thereby minimizing errors. It combines augmented reality and artificial intelligence to enhance situational awareness for law enforcement officers. It provides officers with a hyper-virtual representation of their surroundings, helping them make effective decisions in high-risk situations [7].

AI and Police Information Systems. Artificial intelligence and police information systems are a powerful combination that allows law enforcement agencies to improve data management, automate routine tasks, and improve crime-fighting efficiency. AI is transforming police information systems, making them more intelligent and adaptive. However, it is worth noting that the introduction of AI into policing raises certain ethical concerns related to data privacy [8].

Robotics and Drones. Robotics in policing represent cutting-edge technologies that are transforming approaches to security, prevention, and response. These tools enable complex tasks that involve significant risk to officers. Drones offer aerial surveillance capabilities, which are particularly useful for monitoring large crowds and difficult-to-reach areas [4].

4. Challenges and Ethical Considerations

AI is widely implemented all over the world both in western and eastern countries. The introduction of these AI technologies into the justice and policing sectors requires careful consideration of ethical implications, particularly those related to honesty, equality, privacy, and rights for individuals. Predictive policing, which uses AI, big data analysis, and simulations, is gaining popularity around the world. However, this shift toward technology-driven law enforcement presents challenges, particularly in training law enforcement officers to effectively use these new technologies.

Historically, as technology advances, so do the methods used by police. Once it was the telegraph and telephone, now it is drones and AI. However, what is legal in the US may be illegal in other countries.

Despite the advantages of each individual technology, the lack of uniform global requirements significantly reduces their potential.

The US Pacific Northwest National Laboratory has launched a study into the possibility of using artificial intelligence to create a “digital police officer”. Law enforcement officials expect that in the future, law enforcement agencies will be able to collaborate with virtual assistants to combat crime. For example, AI could connect to a facial recognition system and notify a patrol officer about a suspect nearby. Or an AI assistant could advise a police officer on the best way to detain a suspected offender. The national lab also described how a separate virtual assistant could provide U.S. Customs and Border Protection agents with visual data to combat drug trafficking.

However, advocates cited concerns about inaccurate facial recognition matches and biased prediction policies. “The greatest skepticism and caution regarding the use of AI was expressed by the study participants regarding the possibilities of forecasting and decision-making. The prospects for their implementation are somewhat questionable. To a large extent, due to ethical aspects. Among the discussion issues raised by the study participants are the lack of empathy and moral understanding, the risk of bias and discrimination, the unpredictability of results, responsibility for errors, replacement of human labor, etc.” [2].

The introduction of AI tools and technologies calls for careful consideration as the outcome of AI research influences the law decisions made by policemen and judges. The possibility of fault, minimal as it may be, still should be taken seriously. So far, the usage of AI in our country does not go beyond simple camera surveillance, face detection programs or data analysis but predictive policing is starting to gain popularity.

5. Global Trends in Law Enforcement Training

In modern conditions, one of the most complex police systems in its structure functions quite successfully in the *United States of America* (USA). It is characterized by a variety of organizational and legal forms, which is due to the peculiarities of historical development, the legal system of the Anglo-American type, and the federal state system [13].

All this imposes its own specifics on the training of police personnel, which is carried out in educational institutions, traditionally called police academies. Law enforcement (police) personnel are trained to act under conditions of strict control by special agencies responsible for the legality and transparency in the work of law enforcement agencies, executive bodies, judges, prosecutors, lawyers, and jury bureaus. This requires special professionalism, as well as high personal moral qualities.

The US police, as a rule, does not have its own training base and tries first of all to recruit specialists who have received the appropriate education in colleges or universities. A wide network of police academies cannot be considered as such a base, since they are not structurally part of the police department, are organizationally and financially independent, and are merely a kind of primary training center for civilian specialists so that they can obtain a license to carry out police activities [3].

In the USA, graduates of academies, having entered the service, undergo strict and thorough training, because in addition to the skills acquired in the educational institution, a police officer must know the policies, methods, rules, instructions and fully imagine how to properly perform his job. Therefore, graduates of the academy are given 2 weeks to "get used to it" before they undergo a special course "Employee Training Program". Two-week training serves as a "bridge" for the transition to a 16-week (640 hours) program of practical training. Practical training facilitates the transition from the status of a graduate of the police academy to the position of a law enforcement officer.

The practice of training police officers in *Germany* is considered by many experts to be the most effective and efficient in Europe.

The police in Germany are decentralized. Each of the 16 federal states has its own police force and its own training system. The total strength of the police of the Federal Republic of Germany is 350,000. employees, 80% of them occupy positions of junior management, for the appointment of which it is necessary to obtain a diploma on completion of the police school, 19% – positions of middle management (with higher police education) and only 1% (3.5 thousand people) – positions of senior officers, for the replacement of which it is necessary to graduate from the Higher Police Academy of Management.

The training of police personnel in Germany is based on the principle of lifelong employment. The service activity and training of an employee is planned and directed in a strictly long-term plan. At the same time, constant improvement of his/her qualifications is envisaged.

A special feature of the police training system in Germany is that none of the police educational institutions in the country issues educational documents to its graduates that correspond to any state educational standard. Upon completion of educational institutions, only departmental educational documents are issued, giving the right to work only in the police and, as an exception, in some other state institutions [12].

In *the UK*, police training is carried out in training centers, the training period is from two to three months to two years, depending on the qualification that the person receives. Police training is carried out in special universities or colleges.

The training of police personnel in Great Britain involves the following stages:

- 1) initial training for new constables (ordinary police officers), which lasts the first two years of service;
- 2) special training of candidates for criminal investigation services, traffic and a number of others;
- 3) training of police sergeants and inspectors;
- 4) training of police management personnel [4].

To optimize the integration of AI in policing, ensuring its equitable and positive contribution to modern law enforcement and public safety, the following directions can be pursued:

Enhancing Model Accuracy. Use a broader data set to improve AI algorithms, allowing them to more effectively identify and prioritize critical crime indicators. It is also beneficial to develop adaptive machine learning models that can evolve with changing crime patterns and new data sources.

Broadening AI Applications. AI needs to be used not only in the city, but also in rural and underrepresented areas. This will lead to a more equitable approach to national security.

Fostering Interdisciplinary Collaboration. Collaboration between technologists, criminal justice experts, and policymakers should be encouraged to develop international ethical standards for the use of AI. In the long term, it will be necessary to establish think tanks and working groups to regularly assess the impact of AI on law enforcement and public safety.

Establishing Ethical and Regulatory Frameworks. Ethical and legal standards for the use of AI in policing should be developed and enforced. These standards should be flexible enough to accommodate rapid advances in AI and address emerging ethical issues. Educational institutions must implement comprehensive training programs for law enforcement officers that cover technical skills as well as the ethical and practical aspects of integrating AI into everyday activities.

Engaging the Public and Shaping Policy. Increase transparency and public understanding of the role of AI in crime prevention and prediction, ensuring a balance between improving public safety and protecting civil liberties.

By pursuing these directions, we can harness the power of AI to improve public safety while ensuring that its use is ethical, equitable, and consistent with the values of a just and democratic society.

Conclusions. Continuous professional development through specialized training is vital for officers to stay current on emerging trends in crime and law enforcement strategies. Effective law enforcement education is essential for a modern and just society. Ultimately, specialized training enables law enforcement officers to better protect and serve their communities by providing them with the tools and knowledge needed to effectively address complex and dynamic situations. This targeted training contributes to increased officer safety, improved community relations, and a more just and equitable society.

Ultimately, the modernization of law enforcement education through AI tools not only strengthens the skillset of officers but also contributes to the development of safer and more equitable communities. As these technologies continue to evolve, ongoing professional development and adaptive learning approaches will remain essential in preparing law enforcement personnel for the demands of a rapidly changing world.

The integration of modern technologies, particularly AI, presents both opportunities and challenges. While AI can improve investigative capabilities and increase efficiency, it is critical to prioritize the development of core soft skills—critical thinking, decision making, and problem solving—that remain essential to human interaction and ethical policing. AI systems can assist in analyzing vast amounts of data to identify crime patterns, allowing officers to more effectively anticipate and prevent criminal activity. However, it is important to recognize that AI is merely a tool, not a replacement for human judgment and experience.

Ethical concerns, including issues of bias, accountability, and data privacy, necessitate robust regulatory frameworks and interdisciplinary collaboration among technologists, educators, and law enforcement agencies. Balancing technological advancement with the preservation of human judgment and empathy is crucial to fostering public trust and ensuring the responsible use of AI in policing.

AI facilitates connections between law enforcement agencies around the world, allowing trainees to learn from international best practices and ensuring that officers are better prepared to address evolving public safety challenges in a rapidly changing world. Ultimately, a well-educated and well-trained police force is vital to maintaining public safety and upholding the principles of justice.

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АНОТАЦІЯ

Тетяна Іщенко, Ірина Нікітіна, Бісваджит Дас. Інновації в освіті правоохоронців: вплив інструментів штучного інтелекту.

Спеціалізована освіта для працівників правоохоронних органів є надзвичайно важливим компонентом ефективної поліцейської діяльності. Вона забезпечує офіцерів знаннями, навичками та відповідним мисленням, необхідними для вирішення складних ситуацій, захисту громад і дотримання закону. Інтеграція інструментів штучного інтелекту (ШІ) у спеціалізовану освіту правоохоронців надає професіоналам можливість використовувати сучасні технології, що сприяє більш ефективному підходу до запобігання злочинності та забезпечення громадської безпеки.

Інвестиції у спеціалізоване навчання гарантують, що офіцери будуть добре підготовлені до викликів сучасного поліцейського середовища. У статті розглядаються технології ШІ, які застосовуються для модернізації спеціалізованої освіти правоохоронців, включаючи навчання в аудиторії, персоналізоване навчання та самостійну підготовку, а також їх подальше використання у професійній діяльності. Підкреслюється роль технологій та інструментів ШІ у модернізації освіти для правоохоронців. Розглядаються перспективи застосування ШІ, а також ризики і виклики, пов'язані з упровадженням технологій та інструментів ШІ у спеціалізовану освіту правоохоронців. Особлива увага приділяється значенню спеціалізованої підготовки для працівників правоохоронних органів.

Автори відображають свої погляди на майбутні напрями розвитку ШІ в освітній сфері, зокрема у контексті підготовки кадрів для правоохоронних органів, пропонуючи можливості та ризики, які супроводжують використання ШІ у професійній підготовці. Застосування ШІ у спеціалізованій освіті дає змогу впроваджувати адаптивні методики навчання, які враховують індивідуальні особливості кожного учасника освітнього процесу. Це сприяє підвищенню рівня знань і підготовки працівників правоохоронних органів, роблячи їх більш ефективними у виконанні своїх обов'язків.

Ключові слова: інструменти штучного інтелекту, правоохоронні органи, спеціалізоване навчання, поліцейська діяльність із використанням ШІ.

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NEUROLANGUAGE COACHING AND AI: PIONEERING INNOVATIONS IN ENGLISH LANGUAGE EDUCATION FOR LAW PROFESSIONALS

This article considers the possibility of integrating neuro-linguistic coaching and artificial intelligence (AI) into the process of teaching English language learning to law students. English language proficiency is a crucial factor in international legal practice, but classical teaching methods usually do not allow to fully realize the specialized language needs of legal professionals. The combination of neuro-linguistic coaching and artificial intelligence offers a fundamentally new approach to meeting these needs. Neuro-linguistic coaching

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