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Artificial Intelligence in Law Enforcement

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ABSTRACT

The term "artificial intelligence" is used to refer to the field of computer science dedicated to studying and creating technological systems that can imitate human abilities such as visual perception, decision-making, and problem-solving. In recent years, we have seen artificial intelligence (AI) technologies become embedded in society and our daily lives. AI has emerged as a powerful tool in various fields, including law enforcement. AI can empower law enforcement agencies to expand their efforts to protect public safety. In this paper, we will delve into the remarkable potential of AI in police investigations.

KEYWORDS: *artificial intelligence, machine learning, AI, generative AI, law enforcement, policing.*

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INTRODUCTION

Technology can help make everyone's lives and jobs better, more efficient, and more enjoyable. Technology and policing are closely related; think speed detection radar technology and surveillance drones. For the law enforcement community, technology can help make all the things police departments need to do better, more effective, and more efficient. Law enforcement officials use technology to better detect, investigate, and solve crime. They rely on technology for many parts of their job: identification of criminals, prediction of deviant behaviors, crime scene investigations, tracking of money flows, and tagging and defending against fake news. There are nearly 18,000 state and local law enforcement agencies across the country. Most police departments are led by a chief and report to a city mayor or a designated entity, like a police commission. The primary function of more than two-thirds of federal officers is criminal investigation. Figure 1 shows some police officers [1].

Artificial intelligence (AI) may be regarded as a domain of computer science that creates machines that mimic human intelligence. It is the ability of machines or software to perform tasks that normally require human intelligence, such as recognition, reasoning, learning, and decision making. AI applications generally improve efficiency, increase data-driven practices, and expand capabilities for law enforcement agencies. AI solutions can assist law enforcement agencies in making decisions and performing tasks [2]. Today, law enforcement agencies across the country are increasingly encountering and adopting technology equipped with AI, recognizing that incorporating AI can increase efficiency and expand capabilities. As law enforcement agencies move to adopt AI, lawmakers at all levels of government have considered policies that balance the benefits of AI in policing with potential risks. Drone capabilities are advancing as AI is incorporated into the technology. State legislatures continue to focus on the use of drones by law enforcement, and drone laws have been enacted in recent years. As AI technology continues to advance, government policies at all levels will likely evolve. AI technologies have huge potential to support the work of law enforcement agencies. They have the

ability to completely transform policing; from advanced criminal analytics that reveal trends in vast amounts of data, to biometrics that allow the prompt and unique identification of criminals. AI has helped deter crime, expedite investigations, and protect law enforcement agents [3]. Figure 2 shows police interaction with AI [4].

WHAT IS ARTIFICIAL INTELLENCE?

The term "artificial intelligence" (AI) is an umbrella term John McCarthy, a computer scientist, coined in 1955 and defined as "the science and engineering of intelligent machines." It refers to the ability of a computer system to perform human tasks (such as thinking and learning) that usually can only be accomplished using human intelligence [5]. Typically, AI systems demonstrate at least some of the following human behaviors: planning, learning, reasoning, problem solving, knowledge representation, perception, speech recognition, decision-making, language translation, motion, manipulation, intelligence, and creativity.

The 10 U.S. Code § 2358 define artificial intelligence as [6]:

1. "Any artificial system that performs tasks under varying and unpredictable circumstances without significant human oversight, or that can learn from experience and improve performance when exposed to data sets.
2. An artificial system developed in computer software, physical hardware, or other context that solves tasks requiring human-like perception, cognition, planning, learning, communication, or physical action.
3. An artificial system designed to think or act like a human, including cognitive architectures and neural networks.
4. A set of techniques, including machine learning, that is designed to approximate a cognitive task.
5. An artificial system designed to act rationally, including an intelligent software agent or embodied robot that achieves goals using perception, planning, reasoning, learning, communicating, decision making, and acting."

AI provides tools creating intelligent machines which can behave like humans, think like humans, and make decisions like humans. The main goals of artificial intelligence are [7]:

1. Replicate human intelligence
2. Solve knowledge-intensive tasks
3. Make an intelligent connection of perception and action
4. Build a machine which can perform tasks that requires human intelligence
5. Create some system which can exhibit intelligent behavior, learn new things by itself, demonstrate, explain, and can advise to its user.

AI is not a single technology but a range of computational models and algorithms. The concept of AI is an umbrella term that encompasses many different technologies. AI is not a single technology but a collection of techniques that enables computer systems to perform tasks that would otherwise require human intelligence. The major disciplines in AI include [8]:

- Expert systems
- Fuzzy logic
- Neural networks
- Machine learning (ML)
- Deep learning
- Natural Language Processors (NLP)
- Robots

These computer-based tools or technologies have been used to achieve AI's goals. Each AI tool has its own advantages. Using a combination of these models, rather than a single model, is recommended. Figure 3 shows a typical expert system, while Figure 4 illustrates the AI tools. These tools are gaining momentum across every industry. Analytics can be considered a core AI capability.

GENERATIVE AI

Artificial Intelligence (AI) is increasingly a part of our world and it is rapidly changing our lives. Generative AI (GenAI) is a subset of artificial intelligence that uses generative models to produce text, images, videos, or other forms of data. Generative AI (GenAI) is a term for any type of AI system capable of using generative models to create new forms of humanlike creative content, like text, images, music, audio, video and more. GenAI models include various algorithms able to learn the various patterns and structures of input training data before generating novel outputs with similar characteristics. It is essentially a narrow type and application of the broader artificial intelligence umbrella of technologies. It describes algorithms (such as ChatGPT) that can be used to create new content, including audio, code, images, text, simulations, and videos. It is specifically designed and trained to generate new content. The versatility and potential of GenAI to transform various aspects of business operations make it an attractive investment for companies across industries. GenAI uses neural networks, machine learning, deep learning models, complex algorithms, and large and varied training datasets to produce original content based on user input and how to reason in ways akin to a human brain. The technology is built on AI tools shown in

Figure 5 [9]. It uses neural networks to identify the patterns and structures within existing data to generate new and original content.

Generative AI can be thought of as a machine-learning model that is trained to create new data, rather than making a prediction about a specific dataset. Since its inception, the field of machine learning used both discriminative models and generative models, to model and predict data. A generative AI system is constructed by applying unsupervised machine learning or self-supervised machine learning to a data set. The most common way to train a generative AI model is to use supervised learning. Generative AI can also be trained on the motions of a robotic system to generate new trajectories for motion planning or navigation. Generative AI models are used to power chatbot products such as ChatGPT [10].

Generative AI is transforming nearly all aspects of the pharmaceutical industry, revamping the way companies operate and potentially unlocking billions of dollars in value. The pharmaceutical-operations value chain encompasses sourcing, manufacturing, quality, and the supply chain—and gen AI is expected to improve them all

AI IN LAW ENFORCEMENT

Artificial Intelligence (AI) is now everywhere, from your smartphone to your shopping cart. It is making its way into one of the most traditional sectors of society: policing. Law enforcement agencies across the country are increasingly encountering and adopting technology equipped with AI. Federal state and local governments can exercise oversight over policing, including adoption of AI technology. Law enforcement agencies use AI in three ways [1]: to assist humans with tasks and increase capacity, expand human capabilities and, in some limited instances, replace humans entirely with fully automated processes. Examples of areas where AI systems are successfully used include automatic patrol systems, identification of vulnerable and exploited children, and police emergency call centers. It has been observed that [11]:

Success = people + process + technology

Just like their peers in government and industry, law enforcement officials are asking a fundamental question: "What does law enforcement look like in the age of AI?" Enforcing the law and protecting our people in the age of AI requires that we leverage it for what it does best—processing vast quantities of data quickly and detecting patterns to free up humans for what we do best. Techniques like facial recognition and biometric screening, which now use AI to enhance their performance, can quickly identify people and suspects in real time and aid in investigations [12].

APPLICATIONS OF AI IN LAW ENFORCEMENT

AI systems are being implemented in law enforcement for a variety of purposes. It is possible to classify the most common applications of AI systems in law enforcement according to their main purpose. AI offers a wide range of applications for law enforcement agencies to enhance their capabilities, improve efficiencies, identify intelligence gaps, and support efforts to maintain public safety. Common applications include the following [11,13-15]:

- *Image Analysis:* AI systems can be utilized to analyze very large data sets of photos, videos, and other visual information and automatically recognize, classify, and contextualize an image or elements within that image. The AI systems that detect and recognize elements in an image use a technique called object recognition. Object recognition includes machine learning algorithms that are built to process pictures, identify geometrical shapes and, ultimately, recognize things, faces and other objects.
- *Facial Recognition:* Facial recognition technology (FRT) is another area where AI has been deployed in policing. Face recognition is a computer vision technology that analyzes faces in an image. It can be used for things such as face identification (the identification of an individual based on a comparison with a pool of known individuals) and face verification (verifying that a given face corresponds to a specific person). Commonly called facial recognition technology (FRT) is a widely-used variation of object recognition. The technique of facial recognition recognizes or supports the identification of specific persons in photos, videos, and other visual inputs. Although facial recognition presents considerable opportunities for socially beneficial uses, mostly through enhanced verification and identification processes, it also creates unique challenges which have led to some negative reactions and distrust from the public. For example, in 2018 an innocent individual from an ethnic minority community was arrested and held in custody as a result of being falsely identified as a suspect in a theft investigation in which facial recognition technology was used.
- *Prediction:* Policing agencies use AI to try to predict the location and time of future crime, as well as those who may perpetrate or be the victims of it. Place-based predictive policing

systems use historical crime data to identify areas prone to crime, and at what times. Systems also can analyze geographic features that increase the risk of crime, known as risk-terrain analysis. Pattern identification in very large data sets to recommend or trigger courses of action is another common application of AI systems in law enforcement. Predictive policing systems are a prominent, although controversial, example of AI systems being used for these purposes.

- *Tracking:* Policing agencies use AI systems to track the locations or movements of individuals. Tracking algorithms can detect objects and/or individuals in video files and track them across cameras based on the appearance, velocity, and motion of the thing being tracked. This feature could be used, for example, to search stored video footage from a particular neighborhood and identify all the times that a given individual was recorded.
- *Detection:* Policing agencies use AI to detect crime, anomalies, or suspicious events. Anomaly detection seeks to identify events or data points that are anomalous — that is, that deviate from what is expected. This technology is widely used by the private sector— for example, by financial institutions to detect fraudulent transactions or by network administrators to detect cyberattacks. Some vendors have developed systems designed to alert policing agencies to events such as shoplifting, fights, loitering, dangerous driving, and casing a location. AI speed cameras, which use a 4D scanning system to watch drivers inside their cars, are being used to detect if someone is using their mobile phone while driving or is not wearing a seat belt.
- *Chatbots:* A chatbot is designed to have a conversation, answer questions, and solve problems. A chatbot is a computer program that is designed to simulate conversation with human users. It does this by using natural language processing to understand what the user is saying and then generating a response that is both relevant and informative. For example, you can ask the chatbot questions, and it will try to answer your question. Officers can use chatbots anywhere where they are working with documents such as incident reports or presentations to city offices.
- *Automated License Plate Recognition (ALPR):* ALPR systems use AI to capture and analyze license plate data from vehicles. Law enforcement agencies use ALPR for various purposes, including tracking stolen vehicles, monitoring traffic violations, and conducting investigations. ALPR systems can provide real-time data on vehicle movements, aiding in the swift resolution of cases. The presence of ALPR technology can deter criminal activity, as individuals may be less likely to engage in illegal behavior if they know they are being monitored. New York City has implemented ALPR technology to monitor vehicle movements and assist in law enforcement investigations.
- *International Law Enforcement:* International law enforcement agencies like the Interpol and Europol, which are vested with the authority and responsibility to ensure the safety of member nations, require extensive intelligence gathering abilities. They are realizing the significance of technologies like AI and big data, and are slowly incorporating these technologies into their operations. Crimes such as terrorism and trafficking, due to their highly decentralized way of operating, are difficult to track. Gaining support from local law enforcement agencies is also not possible, as in most cases they have their hands full with other important duties. Most terrorism and other forms of organized crime are conducted using regular day-to-day activities as cover, making it hard for law enforcement and intelligence agencies to distinguish between the anti-social elements and the innocent civilians. Figure 6 shows AI applications on international law enforcement [16].

BENEFITS

The use of artificial intelligence is happening in law enforcement. The integration of AI into law enforcement represents a significant leap forward in the capabilities of police forces worldwide. From predictive policing algorithms to facial recognition systems and digital forensics tools, AI is reshaping how law enforcement agencies prevent, investigate and solve crimes. There are three areas where AI can be beneficial: for something that increases accuracy, something that increases efficiency or something that does what a human cannot do. Other benefits include [13,17]:

- *System Autonomy:* Many AI systems are designed to have some level of autonomy. Autonomy in this context means a system's capacity to take a series of decisions without human oversight. In some cases, depending on the environment in which the system is used, it may also carry out a series of actions associated with these decisions. Although both AI autonomy and automation are very useful and are a large part of what makes AI systems so efficient, it is important to remember

that AI systems are only tools to help law enforcement, and should not be seen as substitutes for decision-making processes. This is particularly true for decisions which have an impact on people's lives.

- *Scalability:* In today's fast-paced law enforcement context, the speed of decision-making is a critical factor for efficiency. Unfortunately, humans are limited in terms of the pace of their decision-making processes by time and cognitive constraints. However, the scalability of AI systems allows them to overcome this limitation by a large margin. The scalability of AI systems allows them to process and analyze vast amounts of data quickly and efficiently.
- *Predictive Policing:* One of the most notable applications of AI use in policing is predictive policing. Predictive algorithms help stop crime before it happens. AI algorithms analyze large datasets, such as historical crime data, social media activity, and environmental factors, to predict where and when crimes are likely to occur. These predictions enable police forces to allocate resources more efficiently, increasing patrols in high-risk areas and, in theory, preventing crimes before they happen.
- *Efficiency:* AI can process vast amounts of data in a fraction of the time it would take human analysts.
- *Security:* The pace the adoption of AI for security purposes has increased in recent years. AI has recently helped create and deliver innovative police services, connect police forces to citizens, build trust, and strengthen associations with communities. There is growing use of smart solutions such as biometrics, facial recognition, smart cameras, and video surveillance systems. Cities are exploring the capabilities of predicting crime by analyzing surveillance data, in order to improve security. The collection of vast amounts of personal data by law enforcement agencies also raises concerns about data security. Breaches or unauthorized access to sensitive information can lead to significant harm, including identity theft and misuse of personal data.

CHALLENGES

While their potential is undeniable, AI systems have limitations and can have negative consequences. Current AI systems have limitations and risks that require awareness and careful consideration by the law enforcement community. The public debate around legal and ethical implications of AI systems, as well as the negative effects they could have on society and humanity, has exploded. The misuse of AI can lead to challenges in authentication and the admissibility of evidence in court. Other challenges include [12,13,18,19]:

- *Human Error:* Humans make mistakes. Criminal justice systems, for example, are not perfect – judges, prosecutors, and law enforcement officers can err, and their mistakes can have negative consequences. Every human system is vulnerable to mistakes as it may be affected by multiple factors. Emotions such as fear, anger, or anxiety that can lead to hasty or irrational decisions, and emotions such as sympathy or empathy that can lead to biased decision-making. If errors or biases are embedded in AI systems, these errors may be amplified, causing harm on a faster and broader scale than humans alone would.
- *Human Rights:* Human rights and freedoms are individual rights endowed on everyone irrespective of their background. All individuals have rights and freedoms simply because they are human beings. International human rights law is based on the Universal Declaration of Human Rights, adopted by the United Nations General Assembly in 1948. The characteristics of AI systems in the context of policing often lead to an interference with human rights. This is why it is fundamental to integrate human rights considerations in the use of AI systems by law enforcement. Human rights law imposes obligations on law enforcement agencies, officers, and other personnel to protect and fulfil the human rights of individuals and refrain from violating any human rights in all their activities. While the obligation to pursue their mission in a manner which complies with human rights is not new in law enforcement, the introduction of AI systems adds a layer of risk that makes it even more important to stick to the law.
- *AI Ethics:* Artificial intelligence is a powerful tool for law enforcement but brings with it a host of ethical considerations that must be carefully navigated. Ethics forms the basis for the universal justification of human rights. The core ideas of human rights – human dignity and human equality – are ideas formulated and promoted within moral and political philosophy, within the realm of ethics. Ethics provides a body of knowledge with tools, frameworks, and theories to use to evaluate a given situation, and reason to determine the "right" action. Ethics aims to go beyond descriptive social norms or individual feelings and answer the question of "what is the right thing to do" in a systematic and analytical

way where its justification can be understood, analyzed, and shared by any individual. In the context of AI, ethics involves questions related to AI systems and their impact on individuals, groups of people, society at large, and its democratic structures. Figure 7 shows the ethical guidelines for law enforcement [20].

- *Cybersecurity:* Law enforcement must adapt to combat new digital threats as more crime moves online. Cybersecurity units within police departments tackle hacking, identity theft, ransomware, and online fraud. They often collaborate with federal agencies and the private sector to track cybercriminals and dismantle networks.
- *Collaboration:* Law enforcement agencies increasingly collaborate with technology companies and research institutions. These partnerships help develop customized tools that effectively meet policing needs. Collaboration also supports the establishment of standards and best practices. Joint efforts help address technical challenges, ensure security, and promote responsible technology use. Working closely with industry and academic partners strengthens law enforcement's ability to serve communities safely and efficiently.
- *Complexity:* When an AI system's inner workings cannot be understood by humans and/or its outputs are unexplainable to any human, it is considered a black box. A black box system is often defined as one which is too complex for any human to comprehend. This complexity arises from at least two aspects of the system: (1) the data on which the system is trained may be vast and highly varied, with a dataset, and (2) the number of computations made using the input to arrive at any given output may be in the order of millions. The use of black box algorithms carries the risk of limiting humans' ability to apply a critical analysis to the outputs of AI systems.
- *Bias:* A primary concern is the potential for bias in AI algorithms, which can result in discriminatory outcomes. AI models can inherit biases from historical crime data, leading to discriminatory policing practices. The elimination of algorithmic bias is a non-negotiable priority. We must prohibit the use of historical crime data and other sources known to contain racial biases in predictive policing algorithms. Law enforcement executives must prioritize fairness and equity in the development and deployment of AI tools, actively working to mitigate biases and address algorithmic transparency. For example, black people have been wrongfully arrested after police used the artificial intelligence application of facial recognition technology.
- *Privacy*: The deployment of AI technologies raises concerns about privacy, civil liberties, and algorithmic bias. Technologies like facial recognition and social media monitoring raise questions about individual privacy rights. Surveillance and data analysis involve the collection and processing of personal data—often without explicit consent. Protecting privacy and promoting transparency is highly nuanced. Most of the data that law enforcement uses is sensitive and needs to be guarded.
- *Identity Theft*: AI-generated images can be used for identity theft, allowing criminals to impersonate others convincingly. They can create fake identification documents or social media profiles, posing as law enforcement officers or even victims of crimes. This can lead to confusion, false accusations, and undermine the credibility of genuine law enforcement efforts.
- *Cost:* Cost could be a barrier to adoption of AI in law enforcement, particularly for smaller state and local agencies.
- *Education*: Police officials are now confronted with the need to better understand and manage AI in their own operations and IT systems. Proper education and training within police organizations is essential to ensure the effective and responsible deployment of AI technologies in policing practices. AI education should include understanding both the capabilities and limitations of AI, ethical considerations and a solid understanding of how AI technologies will be used.

Education on the ethical implications of AI is crucial to ensure its responsible and accountable use in policing. Officers should be equipped with knowledge about potential biases, fairness considerations and privacy concerns that are associated with AI algorithms.

CONCLUSION

The use of AI in law enforcement is continually on the rise, and law enforcement is making good use of the new types of AI systems and tools that are being developed on a regular basis. As AI rapidly develops, policy aimed at promoting responsible use and education for law enforcement agencies will evolve. Recommendations for the integration of AI in police investigations include ongoing training programs for law enforcement personnel, regular updates to AI algorithms to address biases and improve accuracy,

and public engagement to foster understanding and trust in AI technologies. The use of AI will always be responsible, transparent, and explainable.

With ongoing advancements in AI technology, law enforcement agencies have the opportunity to further refine and enhance their investigative capabilities. As AI becomes an indispensable tool in the pursuit of justice, its successful integration requires a harmonious balance between technological advancements, legal considerations, and ethical principles [4]. To fully leverage the benefits of AI, law enforcement agencies need to adopt digital evidence management systems that can support the current and future applications of AI. More information on artificial intelligence in law enforcement is available from the books in [21-28] and the following related journals:

- The AI Journal
- AI Magazine
- Journal of Intelligence

REFERENCES

[1] "Artificial intelligence and law enforcement: The federal and state landscape," February 2025, https://www.ncsl.org/civil-and-criminal-justice/artificial-intelligence-and-law-enforcement-the-federal-and-state-landscape

[2] J. Redden, B. Aagaard, and T. Taniguchi, "Artificial intelligence applications in law enforcement: An overview of artificial intelligence applications and considerations for state and local law enforcement," August 2020, https://www.ojp.gov/ncjrs/virtual-library/abstracts/artificial-intelligence-applications-law-enforcement-overview

[3] J. Balen, "The benefits and implications of AI in law enforcement," https://statetechmagazine.com/article/2025/05/benefits-implications-ai-in-law-enforcement-perfcon

[4] "Navigating the future of policing," https://www.policechiefmagazine.org/navigating-future-ai-chatgpt/

[5] M. N. O. Sadiku, "Artificial intelligence," *IEEE Potentials,* May 1989, pp. 35-39.

[6] "Artificial intelligence (AI)," https://www.law.cornell.edu/wex/artificial_intelligence_(ai)

[7] "Artificial intelligence tutorial," https://www.javatpoint.com/artificial-intelligence-tutorial

[8] D. Quinby, "Artificial intelligence and the future of travel," May 2017, https://www.phocuswright.com/Travel-Research/Research-Updates/2017/Artificial-Intelligence-and-the-Future-of-Travel

[9] "Generative AI explainer," https://www.aiforeducation.io/ai-resources/generative-ai-explainer

[10] M. N. O. Sadiku, P. A. Adekunte, and J. O. Sadiku, "Generative artificial intelligence," *International Journal of Trend in Scientific Research and Development,* vol. 8, no. 6, November-December 2024, pp. 561-570.

[11] F. Chen, "Exploring AI for Law Enforcement: Insight from an Emerging Tech Expert," interviewed by C. Hsiung, *Police Chief Online*, September 20, 2023.

[12] "Law enforcement on the AI frontier: Seizing the potential requires strong fundamentals," https://www.saic.com/perspectives/data-and-ai/law-enforcement-on-the-AI-frontier

[13] "Understanding the basics of ai innovation in law enforcement," https://www.ai-lawenforcement.org/guidance/intro

[14] "How policing agencies use AI," https://www.policingproject.org/ai-explained-articles/2024/9/6/how-policing-agencies-use-ai

[15] "AI in law enforcement and ethical surveillance," https://blog.geetauniversity.edu.in/ai-in-law-enforcement-and-ethical-surveillance/

[16] "Artificial intelligence in international law enforcement and security," https://www.bbntimes.com/technology/artificial-intelligence-in-international-law-enforcement-and-security

[17] "Ethical AI in law enforcement: Navigating the balance between innovation and responsibility," October 2024, https://www.police1.com/investigations/ethical-ai-in-law-enforcement-navigating-the-balance-between-innovation-and-responsibility

[18] "Artificial intelligence in predictive policing issue brief," https://naacp.org/resources/artificial-intelligence-predictive-policing-issue-brief

[19] M. Iglesias, "The future of policing: Embracing technology and intelligence for the smarter law enforcement," https://migueliglesiasnypd.com/the-future-of-

policing-embracing-technology-and-intelligence-for-smarter-law-enforcement/

[20] "A roadmap for AI technology in law enforcement," February 2025, https://www.thesmartcityjournal.com/en/cybersecurity/a-roadmap-for-ai-technology-in-law-enforcement

[21] M. N. O. Sadiku, S. M. Musa, and S. R. Nelatury, *Applications of Artificial Intelligence*. Sherida, NY: Gotham Books, 2022.

[22] M. N. O. Sadiku, *Applications of Artificial Intelligence – Volume 2*. Tallahassee, FL: John & Johnna Publishers, 2025.

[23] R. G. Ahangar and S. Sherwin, *AI and the Future of Law Enforcement: Redefining Community Trust and Problem-Solving*. IGI Global, 2025.

[24] L. Grim, *AI in Law Enforcement: Advancements, Challenges, and the Future of Policing: A Look At The Intersection Of Artificial Intelligence And Law Enforcement.* Independently Published, 2023.

[25] J. E. Jacoby and E. C. Ratledge, *Handbook on Artificial Intelligence and Expert Systems in Law Enforcement*. Bloomsbury Publishing, 1989.

[26] H. Arora, *Artificial Intelligence in Law Enforcement: Use-Cases, Impact on Fundamental Rights and Ethical Reflections.* Eliva Press, 2023.

[27] C. A. Klein, *AI integration with Law Enforcement: AI & Justice: A Comprehensive Guide to Ethical Integration (AI User Guides).* Independently Published, 2024.

[28] D. Sumner, *A.I. in Law Enforcement (The Artificial Intelligence Revolution).* Kindle Edition, 2023.

Figure 1 Some police officers [1].

Figure 2 Police interaction with AI [4].

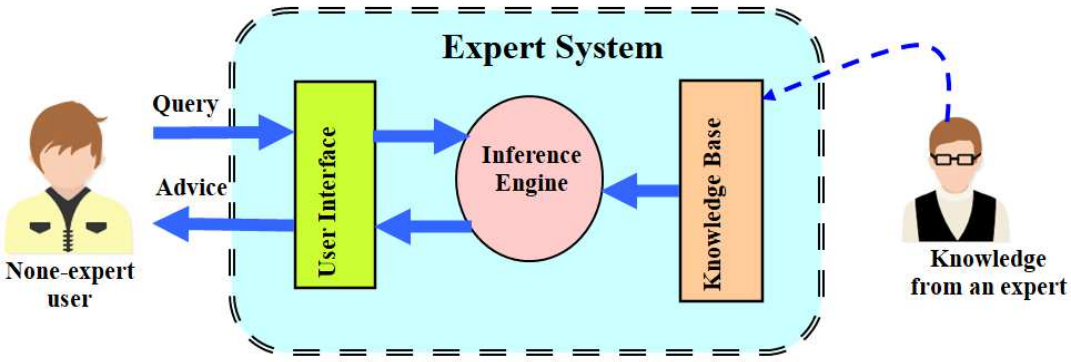

Figure 3 A typical expert system.

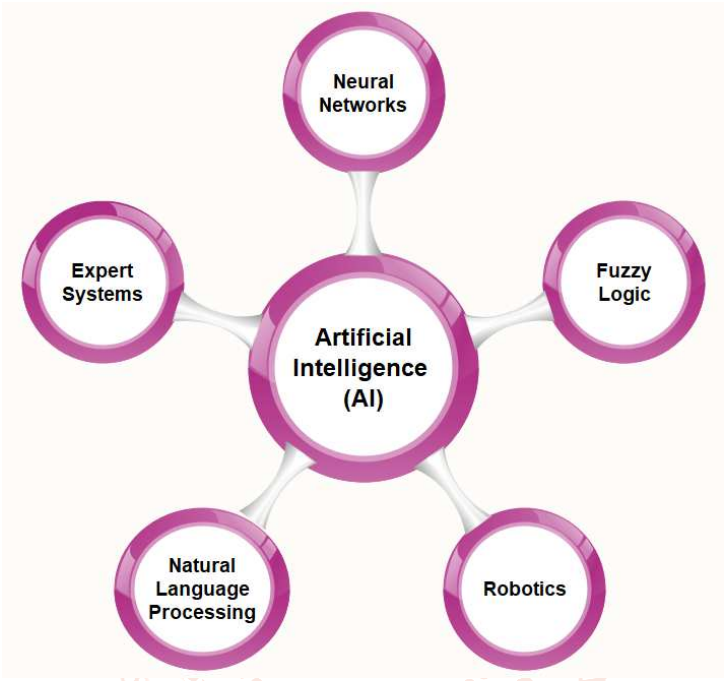

Figure 4 AI tools.

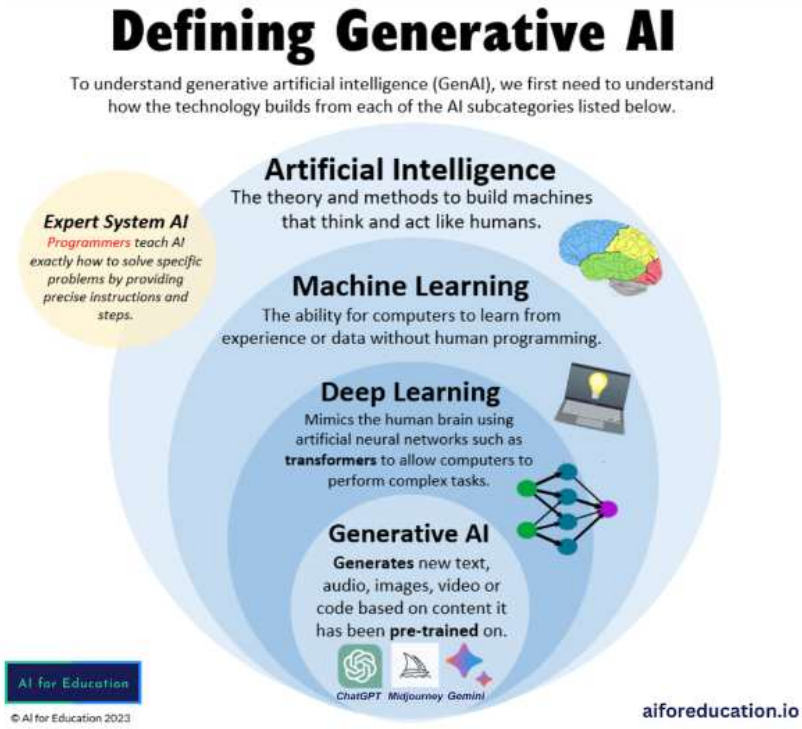

Figure 5 GenAI built on AI tools listed above [9].

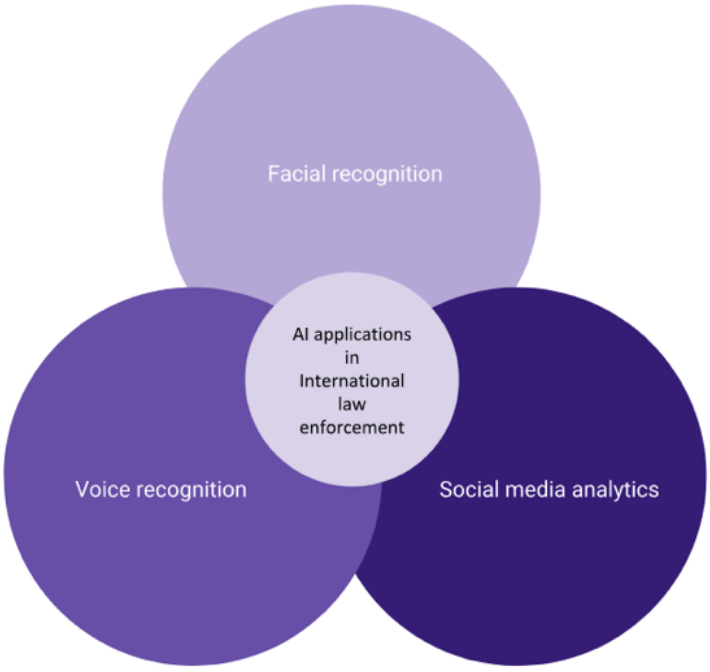

Figure 6 AI applications on international law enforcement [16].

Figure 7 Ethical guidelines for law enforcement [20].