Generative Artificial Intelligence (GenAI) in Policing

Generative Artificial Intelligence (GenAI) refers to a class of artificial intelligence (AI) technologies that can create content such as text, images, audio, and video, based on patterns and data the technology has learned from.[1] GenAI is a relatively recent phenomena which only became commercially available in 2020, but now, GenAI solutions are extensible to a wide range of activities across a broad swath of user bases. GenAI systems use mathematical algorithms to analyze large and complex data sets to create new outputs emulating those which can be created by humans.

GenAI systems are trained to learn general patterns and representations to understand and generate language, images, or other data in ways that can be useful across different domains (e.g., natural language processing, vision, reasoning, etc.). Unlike other types of AI models, which are typically designed to analyze and categorize data, GenAI systems use sophisticated algorithms to produce new content that mimics human creativity.

Benefits of GenAI

GenAI can deliver outputs quickly by processing vast and disparate types of data, either independently (to varying degrees) or through an interactive process with an operator to refine outputs. GenAI can operate using speech or text prompts to create, adapt, and refine outputs, making it widely accessible and useable to nearly everyone.

GenAI systems can utilize data inputs and outputs produced to continually refine and improve its analytical capabilities and further strengthen its outputs. This learning capability can help increase the efficiency and effectiveness of the system. As an example, a GenAI model could analyze a major city's crime data and provide a textual report complete with charts and maps within minutes. Of course, the level of digitization of the data as well as its specificity will affect the quality of results. Similarly impactful will be the capabilities of the GenAI model utilized in conducting the analysis. But even relatively rudimentary data can be analyzed using basic commercially available AI tools in fractions of the time it would take humans to conduct similar analysis.

Examples of GenAI Technology

For text generation:

- ChatGPT
- Microsoft Copilot
- Meta Llama
- Mistral 7B
- Google Gemini
- Claude Sonnet

For image generation:

- DALL-E
- Midjourney
- Stable Diffusion

For video and music generation:

- Amper
- Runway

Limitations and Threats of GenAI

The promise of efficiency and effectiveness offered by GenAI is not without limitations or potentially harmful consequences. Before using any GenAI solutions, an agency should conduct a risk analysis to ensure that risks are clearly identified and – where possible – mitigated. The National Institute of Standards and Technology (NIST) GenAI

[1] See, e.g., EU AI Act definition of General Purpose AI and AI Systems https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:L_202401689.

Profile outlines twelve specific potential risks that need to be accounted for in GenAI.[2] Given the nature of police use of GenAI, specifically, the following risks bear particular consideration:

- ***Confabulation*** – in some instances, GenAI can create erroneous results (a phenomenon known as hallucination).
- ***Data privacy*** – given the common use by police of personally identifiable information (PII), impacts of potential data leakage or misuse must be addressed.
- ***Systemic bias*** – the application of GenAI may serve to amplify historic or societal bias based on defects or inadequacies in the data used for training the model or provided as the subject of analysis.
- ***Human AI configuration*** – the design of the relationship between human operators and GenAI systems may create over-reliance, enhance bias, or create antipathy to GenAI outputs.
- ***Information integrity*** – the reduction in the barrier to entry to use of GenAI in information processing and analysis may result in less rigorous or sophisticated attention to data integrity issues.
- ***Data security*** – the reduction in the barrier to entry to use of GenAI in information processing and analysis may result in less rigorous or sophisticated attention to data security measures.

Examples of GenAI Use Cases

- Analysis of camera video
- Redaction camera video
- Transcription or translation of audio sources
- Preparation of police reports
- Crime analysis activities
- Crime scene animation
- Scenario analysis
- Composite images
- Preparation of policies
- Grant applications
- Creation of procurement documents like requests for proposals
- Training and simulation
- Social media analysis
- Communication and community engagement

CONSIDERATIONS FOR POLICE GENAI ADOPTION[3]

As an initial step, agencies must ensure that GenAI systems are used in support of legitimate governmental practices and consistent with applicable federal (or national), state, and local legal requirements. Consultation with the agency's legal advisor on GenAI use is highly advisable. Additionally, where the GenAI systems are to be operated in support of criminal proceedings, (local) prosecutors should also be consulted in advance of their use. Any agency's use of GenAI systems should be governed by written policies based on those consultations. Unauthorized use of GenAI should be clearly prohibited.

In adopting GenAI solutions, agencies are advised to first execute a pilot deployment before a full rollout of any solutions. This will allow for an assessment of risk factors in an operations environment. Agencies also need to be mindful of the fact that given the evolutionary nature of GenAI systems, measures need to be put in place for continuous monitoring of GenAI systems. As with the introduction of any other new technology, agencies adopting GenAI need to ensure adequate training is afforded to all personnel utilizing that technology.

The U.S. Department of Homeland Security (DHS) GenAI Public Sector Playbook[4] encapsulates the lessons learned from DHS's pilot programs and offers a series of actionable steps for the responsible adoption of GenAI technologies in the public sector. The playbook is designed to meet organizations wherever they are in their journey to understand and incorporate AI technology in their work.

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[2] Autio, Chloe et al. 2024. *Artificial Intelligence Risk Management Framework: Generative Artificial Intelligence Profile*, NIST Trustworthy and Responsible AI, National Institute of Standards and Technology, Gaithersburg, MD, [online]. https://www.nist.gov/publications/artificial-intelligence-risk-management-framework-generative-artificial-intelligence.

[3] For a fuller discussion, see the IACP Policy Center guidance on *Implications Association with Police use of Artificial Intelligence*. https://www.theiacp.org/resources/policy-center-resource/implications-associated-with-police-use-of-artificial-intelligence.

[4] U.S. Department of Homeland Security (DHS). 2025. *Generative AI Public Sector Playbook.* https://www.dhs.gov/publication/dhs-generative-ai-public-sector-playbook.