Criminal Justice & AI: Investigative Developments, Reliability Issues, & Courtroom Implications

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I. Introduction

As technology has advanced over time, law enforcement agencies and courts alike have adapted to integrate the new technologies into their practices. Currently, this is taking place with the integration of Artificial Intelligence into the criminal justice system. AI can be used to assist law enforcement in both making decisions and performing tasks, such as surveillance and investigation.[1] With a continually growing distrust of law enforcement officers, the integration of AI can be an opportunity to improve the criminal justice system[2] and remove some of the ever-present biases of law enforcement officers. However, with the many unknowns surrounding AI's accuracy, it is of high importance that human judgment remains a factor throughout the investigative process and that the work of AI be validated.[3]

II. Investigative Developments & Reliability Issues

One of the most well-established uses of AI in law enforcement is the use of facial recognition technology.[4] This can be used to compare photos and videos of an individual with images from other databases to detect if it is the same person, allowing law enforcement to trace a suspect's whereabouts.[5] The same kind of computer vision technology used for facial recognition is also used for fingerprint matching and DNA analysis.[6] However, there remain concerns over the reliability of facial recognition software and as a result, "[s]tates have made clear that law enforcement cannot rely on facial recognition results as the single investigatory tool."[7] There must be an element of human analysis and judgment before probable cause can be established or an arrest can be made.[8]

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[1] JAMES REDDEN, BRIAN AAGAARD, TRAVIS TANIGUCHI, & CRIMINAL JUSTICE TESTING AND EVALUATION CONSORTIUM, U.S. DEP'T OF JUST., ARTIFICIAL INTELLIGENCE APPLICATIONS IN LAW ENFORCEMENT: AN OVERVIEW OF ARTIFICIAL INTELLIGENCE APPLICATIONS AND CONSIDERATIONS FOR STATE AND LOCAL LAW ENFORCEMENT (2020) HTTPS://CJTEC.ORG/FILES/5F5F94AA4C69B.

[2] *Id.*

[3] COUNCIL ON CRIM. JUST., *The Implications of AI for Criminal Justice: Key Takeaways From a Convening of Leading Stakeholders* (Oct. 2024), https://counciloncj.org/the-implications-of-ai-for-criminal-justice/ [https://perma.cc/X6P7-QUMF]

[4] NAT'L CONF. OF STATE LEGISLATURES, Artificial Intelligence and Law Enforcement: The Federal and State Landscape (Nicole Ezeh, Amber Widgery, & Chelsea Canada, eds., updated Feb. 3, 2025), https://www.ncsl.org/civil-and-criminal-justice/artificial-intelligence-and-law-enforcement-the-federal-and-state-landscape.

[5] Aware, Inc., *Facial Recognition & Law Enforcement – The Value Proposition*, (Feb. 16, 2023), https://www.aware.com/blog-facial-recognition-used-in-law-enforcement/ [https://perma.cc/4L74-MVGE].

[6] NAT'L CONF. OF STATE LEGISLATURES, *supra* note 4.

[7] *Id.*

[8] *Id.*

AI is also using body camera footage and officer narration to curate initial drafts of police reports.[9] These AI generated reports are further supplemented by officers and reviewed for accuracy.[10] Even with the review process however, the "AI-generated content might not have a clear lineage or might be the result of complex processes that are difficult to audit."[11] The ACLU has also raised concerns, asserting that "[f]orcing police to write down the reasons for the use of discretionary power reminds them of the legal limits of their authority."[12] Written justifications are crucial to holding officers accountable and ensuring that they remain within the bounds of their legal authority.[13]

In addition to the ACLU's concerns surrounding accountability, the NAACP has also presented concerns with the growing use of AI in law enforcement.[14] AI has become a resource for predictive policing, which "perpetuates racial bias, violates privacy rights, and undermines public trust in law enforcement."[15] To mitigate these effects, the NAACP has recommended that historical crime data be prohibited in predictive policing and that legislation be enacted to regulate AI in policing and enforce penalties for civil liberties violations.[16] It is important to evaluate racial equity concerns and take steps to prevent the perpetuation of unequal access to justice through the integration of AI.[17]

The Department of Homeland Security has developed a set of principles to ensure the protection of privacy and civil rights and liberties.[18] Some areas of emphasis that the DHS focuses on are human oversight, workforce training, and testing & evaluation.[19] As local and federal law enforcement agencies continue to integrate AI into their daily practices, adopting similar regulations and protocols may assist in ensuring fair and equitable practices.

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[9] *Id.*
[10] *Id.*
[11] Evelina Gentry, *The Challenges of Integrating AI-Generated Evidence Into the Legal System*, Akerman LLP Practice Update (June 12, 2024), https://www.akerman.com/en/perspectives/the-challenges-of-integrating-ai-generated-evidence-into-the-legal-system.html [https://perma.cc/YAX8-5UCC].
[12] Jay Stanley, *AI Generated Police Reports Raise Concerns Around Transparency, Bias*, ACLU News & Commentary, (Dec. 10, 2024), https://www.aclu.org/news/privacy-technology/ai-generated-police-reports-raise-concerns-around-transparency-bias [https://perma.cc/A7F4-KJY5].
[13] *Id.*
[14] *Artificial Intelligence in Predictive Policing Issue Brief*, NAACP (2025), https://naacp.org/resources/artificial-intelligence-predictive-policing-issue-brief [https://perma.cc/48RH-ZW5K].
[15] *Id.*
[16] *Id.*
[17] *Id.*
[18] *Ensuring AI Is Used Responsibly*, U.S. DEP'T OF HOMELAND SEC., https://www.dhs.gov/ai/ensuring-ai-is-used-responsibly#:~:text=Lawful%20and%20Mission%2DAppropriate:%20AI,feedback%20from%20communities%20and%20stakeholders [https://perma.cc/WDQ5-V7YA].
[19] *Id.*

III. AI in the Courtroom

Along with the investigative and reliability concerns that come with the use of AI, there will also be impacts in the courtroom. There are concerns that "deepfakes will impact evidence authenticity, witness credibility, and the integrity of the judicial process, not only because of deepfakes themselves but also because genuine evidence can now be alleged to be false."[20] This leads to increased litigation costs for defendants as digital forensics experts may be necessary to debunk deepfakes.[21] There will also be increased litigation costs for the prosecution as expert testimony may also be necessary to explain how evidence was generated by law enforcement.[22]

Along with additional costs, both judges and juries are now tasked with differentiating between authentic and manipulated evidence.[23] The Federal Rules of Evidence give judges the responsibility of determining the admissibility of evidence, forcing judges to make judgment calls as to AI-generated evidence's reliability and accuracy.[24] In a similar vein, juries, who lack technical expertise, must assess complex expert testimony, increasing the difficulty of properly assessing the merits of the case.[25] While judges (as well as lawyers) can educate themselves on evaluating deepfakes,[26] jurors cannot be expected to do the same. Therefore, while the impacts on the admissibility of evidence may be slim as time goes on, jurors will continue to face confusion and be tasked with parsing through digital forensic testimony to make determinations as to whether AI-generated evidence should be trusted.

IV. Conclusion

Issues of bias, racial inequity, and manipulation of evidence must stay at the forefront of our minds as the criminal justice system continues to integrate AI. Law enforcement officers must remain diligent in oversight of technology and tracking potential disparate impacts that come with the new developments. AI must be carefully monitored to mitigate concerns with reliability. From predictive policing through the trial process, it is critical that important players throughout the criminal justice system continue to stay educated on the many facets of AI and the potential risks that come along with it.[27] Law enforcement, lawyers, and judges alike, must all take on the

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[20] George Bellas, *Deepfakes in the Courtroom: Problems and Solutions*, ILL. ST. BAR ASS'N, STANDING COMM. ON A.I. & THE PRACTICE OF LAW, https://www.isba.org/sections/ai/newsletter/2025/03/deepfakesinthecourtroomproblemsandsolutions [https://perma.cc/Y3TJ-XLAU].
[21] *Id.*
[22] Gentry, *supra* note 11.
[23] *Id.*; *see also*, Bellas, *supra* note 20.
[24] Gentry, *supra* note 11.
[25] Bellas, *supra* note 20.
[26] *Id.*
[27] *See* Bellas, *supra* note 20.

responsibility of staying up-to-date with the developing technologies and its implementations throughout the criminal justice system.

While the issue of jury understanding of complex evidence and testimony will continue to be a challenge for lawyers and judges in the coming years, law enforcement, courts, and legislators can take steps to ensure proper use of AI technology in the justice system. If properly developed and implemented, AI has the potential to lessen both human error and bias from law enforcement.[28] However, this can only happen with proper oversight and regulation, as AI is also susceptible to bias and error if not correctly implemented.[29] Local and federal jurisdictions should take regulatory steps to guide law enforcement and courts as to the proper uses of AI and the necessary mitigation steps to prevent negative ramifications. As technology continues to develop and AI further integrates throughout the criminal justice system, human oversight at all phases will be critical to establish protocols that ensure the protection of individual rights and procedural fairness.[30]

[28] REDDEN ET AL, *supra* note 1.
[29] COUNCIL ON CRIM. JUST., *supra* note 3.
[30] *Id.*