

October 2023

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**USE OF AI IN CRIME
PREDICTION ALGORITHMS:
ETHICAL AND LEGAL
IMPLICATIONS**

Funding Acknowledgment

This Policy Brief was funded by the Mobilizing Insights in Defence and Security (MINDS) Targeted Engagement Grant program designed to facilitate collaboration and mobilize knowledge between the Department of National Defence, the Canadian Armed Forces, and academia and other experts on defence and security issues. Through its Targeted Engagement Grants, collaborative networks, scholarships, and expert briefings, MINDS works and collaborates with key partners to strengthen the foundation of evidence-based defence policy making. These partnerships drive innovation by encouraging new analyses of emerging global events, opportunities, and crises, while supporting a stronger defence and security dialogue with Canadians.

Background

Artificial Intelligence, AI, is increasingly being deployed in the criminal justice system, particularly in crime prediction and risk assessment. AI algorithms can analyze large amounts of data and identify patterns that may be useful in predicting criminal behaviour. At least 75 countries use facial recognition for domestic security and law enforcement purposes. AI is used to determine travel patterns, link suspects with crime scenes, and populate watch lists.¹ However, the use of AI in predictive policing raises significant ethical and legal issues such as a lack of transparency, intensifying enforcement and ignoring community needs, and failing to monitor the racial impact of predictive policing.² This policy brief will address the potential ethical, legal, and racial implications of predictive policing and provide a set of recommendations to mitigate its adverse impacts on the justice system, particularly through enhancing transparency and ensuring accountability.

Ethical Issues

As is the case with the use of facial recognition software, the main concern is the potential for bias. AI algorithms are only as unbiased as the data on which they are trained. If the data used to train these algorithms is biased, the algorithms themselves will be biased. An example of this are the disproportionately heavier sentences African American receive compared to other people, a phenomenon that has been well established.³ This can lead to discrimination against certain groups of people, particularly those who are already marginalized. For example, if an AI algorithm is trained on data that includes a disproportionate number of arrests of people of a certain group, the algorithm may be more likely to identify members of that group as potential criminals. This phenomenon is called "Selection Bias"⁴ and can lead to discriminatory policing practices, thereby reinforcing historically biased criminal justice systems, such as the case in the U.S.⁵

Another ethical issue is the lack of transparency surrounding AI algorithms. Many advanced AI algorithms such as GPT 4 are considered "black boxes," meaning that it is difficult, if not impossible, to understand how they arrive at their conclusions.⁶ This lack of transparency makes it difficult to assess whether an algorithm is biased or not. It can also make it difficult to hold those responsible for the algorithm accountable for any discriminatory or otherwise unethical outcomes. For example, a crime forecasts AI such as Palantir and LASER might emphasize pre-emptive and over-policing of a certain marginalized area⁷; however, since it is unclear how the conclusion was reached, the fairness of the process becomes hard to monitor and evaluate.

1 Framework, A., & Brief, C. P. (2021). AI for judges

2 Završnik, A. (2021). Algorithmic justice: Algorithms and big data in criminal justice settings. *European Journal of Criminology*, 18(5), 623-642. doi:10.1177/1477370819876762

3 Bagaric, M., Hunter, D., & Stobbs, N. (2019). Erasing the bias against using artificial intelligence to predict future criminality: Algorithms are color blind and never tire. *U.Cin.L.Rev.*, 88, 1037.

4 Forbes. (2020, Feb 7). Biased algorithms learn from biased data: 3 kinds of biases found in AI datasets.

5 ACLU. (2018). With AI and criminal justice, the devil is in the data. Retrieved June 7, 2023. From <https://www.aclu.org/issues/privacy-technology/surveillance-technologies/ai-and-criminal-justice-devil-data>

6 Wischmeyer, T. (2020). Artificial intelligence and transparency: Opening the black box. *Regulating Artificial Intelligence*, 75-101.

7 Brayne, S. (2017). Big data surveillance: The case of policing. *American Sociological Review*, 82(5), 977-1008.

Legal Issues

In addition to ethical issues, the use of AI in crime prediction algorithms raises legal issues as well. One of the primary legal issues is the potential violation of privacy and the right against unreasonable search. If an AI algorithm is used to predict criminal behaviour, and that prediction is used as a basis for a search warrant or launching an investigation, it may cause a violation of human rights. This is an even more critical issue where human rights are not strongly protected.

Another legal issue is AI's potential for due process violations. When AI is used to make decisions about an individual's guilt or probability of reoffending, the accused may not be able to challenge the decision-making process due to the limited understanding of how the decision was reached.

In a study examining algorithmic decision-making and perceptions of fairness, researchers found that the algorithms did not allow for "multiple concepts of fairness, altruistic behaviours and norms, or the social psychology of users."⁸

Lastly, due to the various actors that influence and control the use of AI in the criminal justice system, determining liability for harm caused due to inaccurate or false algorithmic outcomes will create new legal challenges. A good example of this is granting parole to a certain criminal based on an algorithm that assigned him/her a low-risk score, meanwhile, that person commits a violent crime post-release.

Recommendations

To address the ethical and legal issues surrounding the use of AI in crime prediction algorithms, policymakers should take the following steps:

- Ensure that AI algorithms used in the criminal justice system are transparent and accountable. This may require regulations or guidelines that require those responsible for the algorithms to be transparent about how they work and how they arrive at their conclusions.
- Require that AI algorithms used in the criminal justice system be regularly audited for bias. This may require the use of third-party auditors or other independent experts.
- Ensure that affected individuals have the opportunity to challenge the accuracy of AI algorithms used in the criminal justice system. This may require the development of new legal procedures and mechanisms or the expansion of existing ones.
- Consider alternatives to AI in crime prediction algorithms, such as community-based policing or restorative justice practices. These alternatives may be more effective at preventing crime while also being more ethical and just.

8 Berk, R. A. (2021). Artificial intelligence, predictive policing, and risk assessment for law enforcement. *Annual Review of Criminology*, 4, 209-237.

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