

A Review of Digital Criminal Investigations in the AI Era

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Relation to the Social Sciences

This article studies the use of artificial intelligence in the criminal investigation process including crime prevention, evidentiary system, and case management. This study is related to many of the principles of the social sciences, including: relativism, ethical neutrality, objectivity, and skepticism. Relativism relates to this topic because as AI evolves in everyday life, the court systems are also going to change because of it. Inversely, as court systems change their rules regarding how AI is utilized in their processes, the related technologies will also change. Ethical neutrality plays a big role in this study because it brings up the question of if AI will be ethically neutral enough for criminal investigations. Similarly, it studies if AI is inherently objective enough to be admissible in the criminal investigation process. Finally, skepticism is the basis of the entire study as the researchers are questioning AI's role in investigations and how they should be integrated moving forward.

Research & Analysis

The purpose of this article's research is to understand how AI is integrated into criminal investigations and legal frameworks. Additionally, it studied what "AI application [risks] pose to the fundamental rights and liberties of individuals" (Faqir, 2023, p. 80). Although there was no concrete hypothesis in this article, initial ideas were that AI was being increasingly used in criminal investigations, and as such, needed to be investigated if it was legal to do so. There was also an inference that AI tools would greatly influence criminal justice proceedings in the future, but its extent was not initially known.

This study used qualitative research methods including descriptive analysis, literature reviews, and analytical research of legal frameworks for digital evidence and AI tools for criminal investigations. The data collection was mainly from primary and secondary sources

including: “foundational legal codes, legislative opinions, and ... technical and scientific resources” and “analysis of existing literature pertaining to forensic investigation and criminal procedural laws” (Faquir, 2023, p. 80). This data was gathered through legal topic databases.

Relation to Class Concepts

Many of the concepts covered in class relate to ideas discussed in this article. First, the values of cybersecurity professionals and subcultures is addressed here based on the idea that most individuals value justice and a fair legal system. Additionally, AI and the cybersecurity of these systems is now influencing social systems including the political ones, criminal justice ones, and the community as a whole. Similarly, the idea of Smart Cities is related to this article because many uses of AI mentioned are used to create safer cities for citizens.

Contributions

This study will directly impact the concerns of marginalized groups that are statistically more likely to be involved in criminal investigations. The suggestions from this study will create fairer digital forensics practices, benefiting their communities. Additionally, these findings could help overturn unjust rulings where AI was misused in the investigation process. Overall, this study will help contribute to society by evolving criminal justice with the emergence of AI on a technical and ethical level. This will create a more efficient and fairer legal system for society to benefit from.

Conclusion

Artificial intelligence is becoming more and more prevalent in today's society, and the criminal investigation process is no different. This study seeks to understand its use in these investigations and how they can be used within established legal frameworks. By doing so, the

legal system will evolve effectively with AI while upholding the legal boundaries that keep society prosperous.

References

- Faqir, Raed S. A. (2023). Digital Criminal Investigations in the Era of Artificial Intelligence: A Comprehensive Overview. *International Journal of Cyber Criminology*, 17(2), 77-94.
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