Article 1 Review:

How AI Affects Digital Forensics

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What is being researched?

This article used multiple approaches to describe, analyze, and comprehend how artificial intelligence (AI) has impacted the justice system, the legal ramifications associated with it, and possible benefits. This journal details and questions how AI plays a part in arrest procedures, crime sentencing or fines, the use of AI to associate suspects through audio inspection skills, and how it identifies criminal activities online and patterns. The goal is to determine how much of an effect artificial intelligence will have in the interest of justice and if it is aligned with the framework of the judiciary system.

What is the predicted outcome of the research (hypothesis)?

The hypothesis is that the integration of AI in legal situations can be overwhelmingly impactful (whether good or bad) against the rights of individuals.

What methods were used to answer this question and evaluate the hypothesis?

To figure out what to research, a look at how AI is used in investigations was completed. Qualitative research, analytical research, and data analysis were the three methods completed to fully understand how AI is used in the criminal justice system. More specifically, social scientific principles and normative juridical research. The normative juridical research included laws, legal codes, judicial opinions, technical sources, and scientific sources. Along with this, there were criminal rules and regulations, court procedures, court laws, and documentation linked to the topic. This researcher pulled articles from various journals, legal databases, publications, and institutions related to the question being researched.

How were the social science principles used in the research?

In the data analyzed, there are three of the scientific principles primarily noted throughout the article. Relativism, objectivity, and ethical neutrality are easily identifiable while reading. Relativism was highlighted by explaining how just one process affected another. Specifically, machine learning highlighted efficiency in the courts, and the impact of cybercrimes against individuals caused the government to invest more in cybersecurity. The author of this article remained objective throughout the research and only gave recommendations based on the data provided. The article investigated the ethical implications and risks of using this technology while stating both sides of ethical views from other articles, but the author remained neutral.

What data was analyzed?

This researcher chose to use the "content analysis method" as their framework for collecting and analyzing data. Neutral network technology, clinical medical applications, psychological techniques, and pattern recognition are common tools used in AI. Pattern recognition is a traditional technique that uses statistics, reasoning, and data application to organize substantial amounts of data, such as emails, images, or even audio. Neutral networks are used in investigations to monitor websites, chats, servers, etc. This is useful to detect patterns through online data, which can help identify suspects. DNA has been utilized in forensics since 1986 and has only evolved since then. Biometrics has a crucial role in criminal investigations, as voice, fingerprints, and retina can all be used to link someone to a crime. These medical applications in a clinical setting equate to cybercrime with computers and any technology that can help trace activity and trails left behind. The last AI tool analyzed was psychological techniques, which are the most ethically debated. This combines AI and neuroimaging to predict behavior patterns, mostly among previous criminals, by submitting them to MRIs and PET scans, but it can also be used on others, such as those with mental disorders like autism and addiction.

How does this topic affect or contribute to marginalized groups and society?

This research does not aim to help one group of marginalized society, but everyone. The purpose is to protect the rights and freedoms of all individuals from privacy violations, wrongful collection of personal data, and corrupted evidence. In the conclusion of the journal, the author elaborates on how an agency in the UN created a framework for cybercrime legislation to be applied in individual nations. This covers many cybercrimes, such as extortion, and creates a list of codes to help track and combat cybercrimes. This will help make sure everyone is on the same page to prevent a gap where it is illegal in one area but not in another, allowing them to walk away clean.

The researcher recommended that courts should prioritize the CIA Triad pertaining to this evidence as the amount of data can delay cases, which can also compromise the integrity of the information collected. They also stated that the accuracy of biometric detection by AI can prevent wrongful incrimination. It is stated that with pattern recognition, there is a potential where current time analysis can be done to detect these patterns and help in preventing an incident.

What items from this article correlate to class concepts?

This article speaks about career fields and the scientific principles presented in class (Modules 1 and 2). This discusses multiple concepts of social sciences such as criminology, psychology, and political science (Modules 4 and 5). The CIA trial can also be applied as the recommendations and research work together to ensure the availability of evidence, confidentiality, and integrity (Module 6).

Resources

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