

THE CRIMINAL JUSTICE SYSTEM AND TECHNOLOGY IN THE DIGITAL AGE

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ABSTRACT

This research utilizes a literature review methodology to examine the legal ramifications of technological advancements on law enforcement practices in the digital era. The burgeoning digital landscape has witnessed a surge in technological developments, such as big data analysis, artificial intelligence, and digital forensics, which have fundamentally reshaped law enforcement operations. This study delves into the positive and negative legal implications of these technologies within the justice system. The findings of this research, gleaned from the reviewed literature, suggest that the application of technology in law enforcement can enhance the efficiency of investigations, facilitate evidence analysis, and improve detainee monitoring. However, there are concomitant legal concerns surrounding privacy and data security that necessitate careful consideration. Furthermore, unequal access to technology and data poses a potential threat to the very concept of equal justice under the law. This research is intended to equip stakeholders in law enforcement and public policy with a comprehensive understanding of the legal ramifications associated with technological innovation. By elucidating these issues, this study also lays the groundwork for future researchers to delve deeper into these complexities through more rigorous empirical research endeavors.

Keywords: Digital Age, Criminal Justice System, Law Enforcement, Justice System

Introduction

The digital era has brought major changes in various aspects of life, including the legal system. Technological developments and innovation open up new opportunities in accessing, analyzing, and processing information in law enforcement. The use of technology is an important part of law enforcement in the digital era. It has brought many advances, such as:

1. Increasing efficiency and effectiveness: Technology helps speed up the legal process, from investigation to trial. For example, the use of electronic systems to manage documents, digital forensic tools to analyze evidence, and online platforms for virtual trials,
2. Increase access to justice: Technology allows people to access legal information easily and cheaply. For example, legal websites, legal applications, and online legal consultation services,
3. Increase transparency and accountability: Technology helps increase the transparency of legal processes and increase the accountability of law enforcement. For example, live streaming of trials, online publication of court decisions, and law enforcement performance monitoring systems (Mansur & Gultom, 2009).

However, on the other hand, rapid technological progress often exceeds the development of positive law. This raises several challenges, such as Legal uncertainty: The lack of clear regulations on the use of technology in law enforcement can lead to legal uncertainty and potential human rights violations. Digital disparities such as Unequal access

to technology can exacerbate digital disparities and limit access to justice for certain groups of people, Cyber security The use of technology in law enforcement also poses cyber security risks, such as data leaks and hacking (Held, 2000).

It is important to ensure that technological developments are in line with developments in positive law. Continuous efforts are needed from various parties, such as government, law enforcement, academics, and civil society, to (Raodia, 2019):

- a. Create clear and comprehensive regulations regarding the use of technology in law enforcement.
- b. Increasing people's digital literacy.
- c. Ensuring the cybersecurity of the legal system.

Research Method

This research was a normative legal study that focused on identifying positive laws, legal principles, and legal doctrine. It employed a philosophical approach and utilized secondary data, which are data obtained from literature studies. The secondary data were categorized into three legal bodies. The first legal body consisted of primary legal sources, including the 1945 Constitution of The Republic of Indonesia, Law Number 8 of 1981 concerning Criminal Procedure Law, the Criminal Procedure Code, and Law Number 13 of 2006 concerning Witness and Victim Protection. The second legal body comprised secondary laws, such as books and scientific articles. The third legal body included tertiary laws, which encompassed materials obtained online. Finally, the research results were analyzed using qualitative analysis methods.

Result And Discussion

The results of the Indonesian Survey Institute (LSI) survey in 2023 show that the level of public trust in the National Police has increased (Syarifuddin, Prisgunanto, & Prianggono, 2023). In general, the level of trust in police institutions tends to increase compared to previous findings, both in citizens' trust in their performance and law enforcement in particular. The data presented shows that in January 2023, the National Police received 52% trust. Furthermore, in the February 2023 survey, the National Police received 61% trust (Famudin, 2023).

This is a source of pride and a challenge in maintaining consistent public trust in the performance of the National Police in this era of globalization. It is necessary to realize that society's demands for police performance have now begun to shift in this era of globalization, the existence and function of the police in society are required to adapt to the needs of the society concerned (Famudin, 2023).

Complex societies (rural and urban) where traditional institutions are starting to be neglected, then to regulate social conditions an institution is needed which is called a police institution, and functions to handle and overcome various social problems that occur in society, especially security problems (Jaladriyanta, 2020). To realize community satisfaction to support the emergence of good legal supremacy, the National Police as part of the government bureaucracy in carrying out its duties must abandon conventional methods towards creative methods supported by the use of science and technology. The services provided to the community must be in line with the main duties and functions of the National Police, namely efficient service and supporting government efforts in development, for this reason, there is a need to change the quality of service with the Smart Police concept (Ridwan,

2018). The author defines Smart Police as a concept of effective and efficient police services that involves science and technology. Therefore, in facing society's expectations for a better police force, the police organization must continue to be a learning organization to maintain and improve organizational excellence.

In principle, laws are made to provide services to citizens to create order, security, prosperity, and a true sense of justice (Likadja, 2015). The urgency of improving the quality of law enforcement in this era of globalization is non-negotiable. It is in line with the concept of the Criminal Justice System which is desired by all parties, both from the community and from legal experts and academics (Wantu, Puluhulawa, Bajrektarevic, Towadi, & Swarianata, 2022).

The criminal justice process is the process of law enforcement against a criminal act (violation of the law) (Apripari, Swarianata, Puluhulawa, Puluhulawa, & Matte, 2023). Meanwhile, in the criminal justice process, the state has given duties and authority to law enforcement officers to carry out criminal law enforcement through several legal regulations, including Law Number 8 of 1981 concerning Criminal Procedure Law or what is often called the Criminal Procedure Code and Law Number 13 of 2006 concerning Witness and Victim Protection. The scope of law enforcement is (RI, 1981):

1. Investigators from a state institution called the Indonesian National Police (POLRI) are carrying out the investigation.
2. Investigators include assistant investigators from a state institution called the Indonesian National Police (POLRI) who carry out investigations.
3. Public prosecutor from a state institution called the Prosecutor's Office of the Republic of Indonesia.
4. Judges and courts from a state institution called the Supreme Court of the Republic of Indonesia which is tasked with adjudicating cases.
5. Prisoner development officers from state institutions called Correctional Institutions (LAPAS).
6. Apart from that, there are also law enforcement officers who work as legal advisors, namely advocates or lawyers who come from advocates' offices or legal aid institutions.
7. LPSK, an institution that protects witnesses and victims.

Looking at points 1 and 2 above, investigation and prosecution are process stages that are closely related to the criminal justice system. The criminal justice system is another part of the activities carried out by the justice subsystem as a law enforcement agency in exercising authority in the law enforcement process to realize legal certainty and respect for human rights (Hamid, 2023).

The National Police of the Republic of Indonesia, which is nothing more than an instrument of the state, has the authority in the inquiry and inquiry process, including currently following the dynamics of technological advances, namely based on electronic evidence to improve the quality of law enforcement. The momentum is very large, especially in handling cases related to upholding human rights which are correlated with the protection of witnesses and victims.

Laws with their unique characteristics of having to be written are a necessity for modern countries which are increasingly complex and have diverse fields. Written law then makes the law formal, rigid, inflexible, made by competent authorities and is not related at all to the

quality of legal certainty and justice. Technology has a significant impact on the accessibility of justice. Here are some of the impacts of technology on justice accessibility:

1. **Equal Access**, technology can help expand access to justice for people who live in remote or hard-to-reach areas. For example, courts may use information technology to enable broadcast users themselves to navigate the court (via general information on the court's website)
2. **Online Legal Services**: Technology can also help speed up and simplify legal services. For example, bold applications can be used to submit legal requests or to access legal information.
3. **Easier to Find Legal Information**: Technology can also help speed up access to legal information. For example, a court website can provide information about court schedules, court decisions, and other legal information.

However, the use of technology can also hurt the accessibility of justice. For example, disruption to the accessibility of technological information is caused by development policy factors and lack of access to technological information. Additionally, private sector technology developers may inadvertently compromise the basic protections of the rule of law built into the justice system. In dealing with the impact of technology on the accessibility of justice, continued monitoring of the impact of technological change on justice processes will be essential.

Rapid technological developments in the last few decades have changed the landscape of human life drastically. One aspect that is significantly impacted is the challenge in implementation. The use of technology in law enforcement faces several challenges, including privacy and security issues, increasing technological complexity, and resource sustainability. Below are some details about each of these challenges.

The increasing use of technology in law enforcement has raised concerns about privacy and security. In an era where personal data can be easily collected, stored and used, individuals, governments and organizations need to understand the challenges associated with protecting privacy. As more personal data is collected and stored, there is a risk that it will be misused or fall into the wrong hands.

The rise in cybercrime and hacking also makes it difficult to safeguard sensitive information. **Extensive Data Collection** One of the main challenges in the digital era is extensive data collection. With the internet, social networks and connected devices, the amount of data collected about individuals is increasing. The data may include personal information such as name, address, telephone number, web browsing history, purchasing preferences, and so on. This extensive data collection can cause privacy issues because personal data can be misused or shared without the consent of the individual concerned (Acquisti & Grossklags, 2005).

Misuse of Data by Third Parties Another challenge is misuse of data by third parties. Today, many companies collect personal data from their users and use that data for various purposes, such as ad targeting and consumer analysis. However, there is a risk that the data could fall into the wrong hands or be used for unintended purposes, such as blackmail or identity fraud. Misuse of data by third parties is a serious threat to individual privacy (Kolb, 2013).

Security System Weaknesses Weak security systems also pose a challenge in protecting privacy. Cyberattacks involving the theft of personal data are increasingly common. Malicious actors can steal data in a variety of ways, including phishing attacks, malware, and system hacks. Security system weaknesses can result in personal data being leaked and threaten individual privacy (Solove, 2010).

As technological complexity increases, as technology advances, things also become more complex. This can make it difficult for law enforcement agencies to keep up with the latest developments and use them effectively. The use of encryption and other security measures can also make it difficult for law enforcement to access information that may be relevant to an investigation.

According to the Office of Justice Programs report, law enforcement agencies have implemented a variety of technological advances to improve operational efficiency and outcomes, especially at a time of reduced resources and increased public attention and scrutiny of law enforcement activities. However, much remains to be known about the prevalence and use of technology among law enforcement agencies in this country and the factors influencing its selection and implementation. One of the main obstacles to executing technology in security institutions is budget constraints. Municipal governments that allocate budgets to security agencies to enforce the law must realize that effective solutions cannot be obtained cheaply, and they cannot be postponed until "someday".

Digital evidence management issues persist, and with each year that agencies wait to address these issues, the challenges become greater. The biggest technology challenges facing law enforcement have nothing to do with infrastructure, storage space, or hardware. It is related to the leader's mindset. Law enforcement agencies need to have the right technology to increase their efficiency as resources are limited and more officers are leaving the field or retiring. We can expect to see institutions more closely scrutinize their mobility and communications solutions and adopt custom software applications that digitize and automate traditionally manual processes and improve communications.

Sustainability of resources, the use of technology in law enforcement can be costly, and there may be limited resources available to invest in new technology or maintain existing technology. Additionally, the rapid pace of technological change means that investments in technology will quickly become obsolete or obsolete.

According to an Office of Justice Programs report, budget constraints are one of the top barriers to technology adoption and a survey of federal IT professionals found that the biggest challenges to digital transformation efforts were security concerns, time constraints, workforce skills gaps, too many competing priorities, and inflexible legacy networks.

Overall, the use of technology in law enforcement presents both opportunities and challenges. While technology can help law enforcement agencies become more effective and efficient, it also requires careful consideration of privacy and security issues, as well as continued investment in resources and training to keep up with the latest developments.

Efforts to Overcome Challenges in Applying Technology to Law Enforcement in the Digital Era Innovations in the justice system to ensure justice include the artificial intelligence usage, online courts, research and development. Below are some details of each of these innovations. The Indonesian Supreme Court has developed an AI-based system called Smart Majelis to help determine the composition of judges for cases at all levels of the justice system. According to the Chief Justice of the Supreme Court, the use of this artificial intelligence

system will continue to be developed in the future, including in the courts of first instance and appeals level, to help the performance of case handling while not ignoring the role of humans as the main driving subject because it cannot be denied that current progress continues to lead to on the use of intelligent devices which are significantly capable of providing accuracy and thoroughness in assisting our duties and work in providing the best service for justice seekers.

The use of AI can help improve the accuracy and efficiency of legal processes, but it is important to ensure that human judgment and decision-making remain central to the process.

The Constitutional Court has issued MK Regulation Number 18 of 2009 on Guidelines for Electronic Filing and Remote Hearings (video conference). Remote hearings are conducted by the court panel, the petitioner and/or respondent, as well as their legal representatives, witnesses, and/or experts in real-time online using video conferencing technology via telephone and network connections. It allows all parties to see and speak to each other as if they were in an offline (in-person) court session.

The adaptation of judicial institutions to the digital era can have several impacts. First, it has the potential to improve public access to justice by leveraging technology, thus eliminating barriers of distance and time for those seeking justice. Second, it reduces court costs. Although there are no case fees for proceedings at the Constitutional Court, in-person hearings incur travel and accommodation expenses for litigants. Third, it aims to provide widespread justice to people in all regions.

The Supreme Court of Indonesia is exploring the use of online media/live streaming for reading cassation and judicial review decisions. The policy is expected to offer transparent and accountable legal services to justice seekers. By broadcasting the reading of decisions via live streaming, those seeking justice will no longer need to seek other sources of information to know the outcome of their cases, thereby minimizing fraud actions in the name of Supreme Court officials.

The Indonesian Constitutional Court has conducted a workshop on the use of AI, the Internet of Things, and cybersecurity in the judicial system. According to the Chief Justice, the use of artificial intelligence will continue to be developed, including in first-instance and appellate courts, to assist in case handling while maintaining the role of humans as the primary movers. It is undeniable that technological advancements are increasingly leading towards the use of smart devices, which significantly improve accuracy and precision in our tasks to provide the best service for justice seekers. "However, I must reiterate that no matter how sophisticated our IT devices are, humans will still play the primary role, as IT devices are merely tools to facilitate our tasks. IT devices can only operate according to the patterns we set in the system, while humans have the creativity and intelligence to continuously innovate and make changes," said the former Head of the Supervisory Body.

Continuous research and development can help identify new opportunities for innovation and improvement in the judicial system. Overall, these innovations have the potential to enhance the efficiency, accessibility, and fairness of the judicial system. However, it is important to ensure that these technologies are used in methods that maintain human rights and the rule of law and do not perpetuate bias or discrimination.

Conclusion

The journal concludes that technological advancements and innovations have a significant impact on justice in law enforcement in the digital era. Technology enables

increased efficiency in legal processes, easier access to information, and new tools for investigation. However, challenges related to privacy, ethics, and unequal access also need to be addressed.

Therefore, wise efforts are needed to ensure that technology and innovation support, rather than hinder, the principles of justice in the legal system. The implications of research on the impact of technology and innovation on justice in modern law enforcement can include both positive and negative effects. Positive implications may include increased efficiency in law enforcement, while negative implications may involve potential violations of personal data privacy and misuse of technology in law enforcement.

By comprehending these implications, the government, legal institutions, and technology developers can collaborate to design solutions that balance efficiency and justice in law enforcement in the modern era.

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