



DOI: <https://doi.org/10.38035/gijlss.v4i3>
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Legal Updates on Futuristic Policing Systems Based on Digital Technology to Improve Police Professionalism and Law Enforcement Accountability in Indonesia

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Abstract: The development of the digital revolution and the era of society 5.0 has driven the transformation of the law enforcement system towards futuristic policing based on digital technology. This study examines the issues of professionalism and the regulatory weaknesses of futuristic policing within the Indonesian police system, while also formulating ideal legal reforms to strengthen police professionalism and accountability. The research employs a normative juridical method using statutory and conceptual approaches through the analysis of legislation, legal doctrines, and futuristic policing concepts within the framework of a modern rule of law state. The results indicate that the implementation of futuristic policing in Indonesia still faces various problems, such as abuse of authority, low digital capacity of officers, weak internal oversight, legal vacuums related to the use of artificial intelligence, problems with the legality of digital evidence, weak protection of personal data, and potential human rights violations through digital surveillance. Furthermore, police regulations in Indonesia have not fully accommodated the development of digital technology, resulting in a legal gap and regulatory lag between technological developments and positive law. Therefore, legal reform is needed through the reconstruction of digital governance-based police regulations that regulate the use of artificial intelligence, digital surveillance, personal data protection, technological accountability, and strengthening police professionalism through increasing digital capacity and reforming the legal culture of the police institution. These legal reforms are expected to create a futuristic policing system that is professional, transparent, adaptable to technological developments, and upholds the principles of human rights and due process of law in a democratic state governed by the rule of law.

Keywords: Futuristic policing, digital technology, police professionalism, legal reform.

INTRODUCTION

The development of the digital revolution has brought fundamental changes to the law enforcement system in various countries, including Indonesia. The era of society 5.0, marked by the integration of artificial intelligence, big data, the internet of things, cloud computing,

and digital governance, has changed the work patterns of police institutions from a conventional model to a futuristic policing system based on digital technology (Paduppai, 2019). This transformation not only affects public service and investigation methods, but also changes the paradigm of national security surveillance, which is increasingly dependent on electronic systems and digital data. In national law, this digital transformation is in line with the mandate of Article 30 paragraph (4) of the 1945 Constitution of the Republic of Indonesia, which emphasizes that the National Police of the Republic of Indonesia, as a state instrument, functions to maintain public security and order, protect, serve, and enforce the law (Yusuf, 2024). In addition, Law Number 2 of 2002 concerning the National Police of the Republic of Indonesia also positions the National Police as an institution that is obliged to adapt to developments in society and technology (Tamrin, 2023). However, the development of digital technology has also given rise to new forms of crime, such as cybercrime, identity theft, digital fraud, cyberterrorism, the spread of disinformation, digital content manipulation, and transnational crime, which are difficult to address with conventional law enforcement approaches (Butarbutar, 2025). This situation indicates that digitalization has created new security challenges that require technology-based police system reform and legal reforms that are responsive to the development of a digital society.

The concept of futuristic policing is essentially a form of modernization of police institutions through the integration of digital technology into surveillance systems, public services, crime prevention, and law enforcement. Futuristic policing develops through various approaches such as smart policing, predictive policing, digital policing, and intelligence-led policing, which utilizes artificial intelligence in crime pattern analysis, facial recognition systems, body-worn cameras, command centers, cyber patrols, digital forensics, predictive analytics, and e-policing (Syah, 2024). The benefit of this technology aims to create a more effective, efficient, transparent, and accountable law enforcement system. From a state administrative law perspective, police modernization is also in line with the principles of good governance and e-government, as stipulated in Law Number 25 of 2009 concerning Public Services and Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems. Furthermore, the use of electronic systems in law enforcement is legitimized through Law Number 11 of 2008, as amended by Law Number 1 of 2024 concerning Electronic Information and Transactions, which recognizes the legality of electronic information and electronic documents as valid legal evidence, as affirmed in Article 5 paragraph (1) (Ismail, 2023). Thus, futuristic policing is not merely understood as technological modernization, but rather as an institutional transformation that demands professionalism of officers, bureaucratic transparency, and institutional accountability in a modern law enforcement system.

In Indonesia, the urgency of implementing futuristic policing arises from the still low level of police professionalism in facing the challenges of the digital era. Various problems, such as abuse of authority, excessive use of force, maladministration, weak public services, low integrity of officers, and unpreparedness of human resources in dealing with cybercrime, indicate that police reform has not been optimal. The viral phenomenon on social media related to violence by officers and abuse of authority also has an impact on declining public trust in the police institution. The digital era has created an open space for public oversight so that every action of officers can be easily recorded, disseminated, and tested by the public (Arifin, 2025). From the perspective of a state of law as emphasized in Article 1 paragraph (3) of the 1945 Constitution, all actions of law enforcement officers must comply with the principles of due process of law, protection of human rights, and the principle of legality. It is reinforced by Law Number 39 of 1999 concerning Human Rights, which emphasizes that the state is obliged to respect and protect the rights of citizens from arbitrary actions by officers. However, reality shows that internal and external oversight mechanisms for the use of police authority are still

weak (Putra, 2024). The condition shows that the digital transformation of the police cannot only focus on the use of technology, but it must be accompanied by the establishment of a culture of professionalism, ethical integrity, and an effective legal oversight system.

In institutional reform, digital technology has strategic urgency as an instrument for strengthening police professionalism and accountability. The use of body-worn cameras, electronic traffic law enforcement, command centers, digital police service applications, and electronic surveillance systems can increase the transparency of police actions and minimize abuse of authority. Digital technology also supports evidence-based policing through more accurate and objective collection and analysis of crime data. Furthermore, the digitization of police services can accelerate public service bureaucracy, increase administrative efficiency, and strengthen internal oversight of police institutions (Prabowo, 2018). From a modern administrative law perspective, the use of digital technology aligns with the principles of effectiveness, accountability, openness, and professionalism as stipulated in Law Number 30 of 2014 concerning State Administration. However, the implementation of futuristic policing in Indonesia still faces various legal challenges, such as the lack of comprehensive regulations regarding the use of artificial intelligence in law enforcement, weak personal data protection, unclear boundaries of digital surveillance, and potential violations of public privacy rights. In fact, Law Number 27 of 2022 concerning Personal Data Protection explicitly stipulates that personal data processing must be carried out in a limited, specific, lawful, and transparent manner to protect citizens' privacy rights (Majid, 2025). Therefore, the use of digital technology in the police system must be balanced with strict legal control mechanisms to prevent it from developing into a surveillance state instrument that threatens civil liberties.

A review of existing studies demonstrates that the development of digital technology in policing has generally been examined from fragmented perspectives. Previous research has discussed the utilization of information technology in police institutions, digital policing, cybercrime prevention, police education, and the transformation of public services through digital systems. Other studies have also addressed the challenges posed by technological developments to law enforcement, particularly in relation to cybercrime and the modernization of policing institutions. However, these studies have largely focused on specific technological applications or particular aspects of police institutional development, rather than comprehensively examining futuristic policing as a legal and institutional transformation that simultaneously involves the reconstruction of legal substance, institutional structure, police legal culture, technological accountability, and human rights protection. In particular, there remains limited research that integrates the issues of artificial intelligence, predictive policing, digital surveillance, personal data protection, digital evidence, police professionalism, and accountability into a unified framework of legal reform. This study therefore seeks to fill this gap by positioning futuristic policing not merely as a technological modernization of law enforcement, but as a comprehensive legal reconstruction of the Indonesian policing system. The novelty of this study lies in its integrative analytical framework, which combines Lawrence Friedman's legal system theory, Roscoe Pound's theory of law as a tool of social engineering, and Ulrich Beck's risk society theory to formulate a model of digital technology-based policing reform that balances technological innovation, police professionalism, institutional accountability, legal certainty, and the protection of human rights.

Based on these conditions, legal reform for a futuristic policing system based on digital technology constitutes an urgent need for police reform in Indonesia. Such reform is necessary to reconstruct a modern policing system that is professional, transparent, accountable, and adaptive to technological developments without neglecting the principles of human rights and due process of law. This study employs Lawrence Friedman's legal system theory, Roscoe Pound's theory of law as a tool of social engineering, and Ulrich Beck's risk society theory as its analytical framework. Friedman's theory provides a framework for examining futuristic

policing reform through the interrelationship between legal substance, legal structure, and legal culture. Roscoe Pound's theory is used to explain the role of law as an instrument for directing institutional and social change in response to technological developments. Meanwhile, Ulrich Beck's risk society theory is used to analyze the new legal and social risks arising from technological modernization, particularly those related to artificial intelligence, digital surveillance, personal data protection, and potential human rights violations. Through these theoretical perspectives, legal reform for futuristic policing in Indonesia is directed toward the establishment of a digital policing system that ensures legal certainty, democratic legitimacy, protection of privacy rights, accountability in the use of technology, and strengthened public trust in the police institution within a democratic state governed by the rule of law.

METHOD

This research employs a normative juridical research method focusing on the examination of legal norms, legal principles, legal concepts, and the synchronization of laws and regulations related to a futuristic digital technology-based policing system in improving police professionalism and law enforcement accountability in Indonesia. The research specifically addresses two main questions: first, what are the problems of police professionalism and the regulatory weaknesses in the implementation of futuristic policing based on digital technology in Indonesia? Second, how should the legal reform of a futuristic policing system based on digital technology be formulated to improve police professionalism and law enforcement accountability in Indonesia?

The research employs statutory and conceptual approaches. The statutory approach is carried out by examining relevant legal instruments, including the 1945 Constitution of the Republic of Indonesia, Law Number 2 of 2002 concerning the Indonesian National Police, Law Number 11 of 2008 as amended by Law Number 1 of 2024 concerning Electronic Information and Transactions, Law Number 27 of 2022 concerning Personal Data Protection, Law Number 39 of 1999 concerning Human Rights, Law Number 25 of 2009 concerning Public Services, Law Number 30 of 2014 concerning Government Administration, Law Number 14 of 2008 concerning Public Information Disclosure, and regulations related to electronic-based government systems and digital governance, including Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems.

Meanwhile, the conceptual approach is used to analyze the concepts of futuristic policing, smart policing, predictive policing, digital policing, police professionalism, law enforcement accountability, digital surveillance, personal data protection, and human rights protection within the framework of a modern rule of law. This approach is supported by the theoretical perspectives of Lawrence Friedman's legal system theory, Roscoe Pound's theory of law as a tool of social engineering, and Ulrich Beck's risk society theory.

The legal materials used in this research consist of primary, secondary, and tertiary legal materials obtained through literature studies. Primary legal materials consist of the Constitution, statutes, and other relevant regulations governing policing, electronic information and transactions, personal data protection, public services, government administration, and electronic-based government systems. Secondary legal materials include academic books, scientific journal articles, research reports, and scholarly publications concerning digital policing, artificial intelligence, cybercrime, digital forensics, police professionalism, legal accountability, and human rights. These include, among others, Wibowo's work on *Pemolisian Digital dengan Artificial Intelligence*, Golose's study on information technology implementation in police education, as well as scholarly articles discussing digital policing, cybercrime, police transformation, and digital technology-based law enforcement. Tertiary legal materials consist of legal dictionaries, encyclopedias, indexes, bibliographies, and other

reference materials used to support the clarification and interpretation of relevant legal concepts and terminology.

The collected legal materials are analyzed qualitatively using descriptive-analytical and prescriptive methods. The descriptive-analytical method is used to describe and analyze the development of futuristic policing, existing legal regulations, and the problems of police professionalism and accountability in the digital era. The prescriptive method is used to formulate legal arguments, identify legal gaps and regulatory disharmony, and construct recommendations for legal reform concerning a futuristic policing system that is adaptive to technological developments while remaining oriented toward due process of law, legal certainty, accountability, and the protection of human rights.

RESULTS AND DISCUSSION

Dynamics of Digital Transformation and the Concept of Futuristic Policing in the Modern Law Enforcement System

The development of the digital revolution has brought major changes to the global community's life system, including in the field of law enforcement and modern police governance. The era of society 5.0, marked by the integration of artificial intelligence, big data, the internet of things, cloud computing, blockchain, and digital governance, has created a pattern of social interaction that is entirely digital and data-based. This transformation encourages law enforcement institutions to modernize their systems and methods in order to address increasingly complex, technology-driven security challenges (Manurung, 2019). In the Indonesian legal state, the transformation of the police system has a constitutional basis as regulated in Article 1 paragraph (3) of the 1945 Constitution of the Republic of Indonesia, which emphasizes that Indonesia is a state of law, so that all law enforcement activities must be carried out based on the principles of legality, legal certainty, and protection of human rights. In addition, Article 30 paragraph (4) of the 1945 Constitution emphasizes that the Indonesian National Police, as a state instrument, is tasked with maintaining public security and order, protecting, serving, and enforcing the law (Anshar, 2020). This provision demonstrates that the police institution is obligated to adapt law enforcement practices to technological developments and the dynamics of modern society in order to achieve an effective national security system based on law and digital technology.

The digital transformation within the modern police system has given rise to the concept of futuristic policing, a digital technology-based law enforcement model that integrates electronic surveillance systems, artificial intelligence, predictive analytics, and digital intelligence into police operations. Futuristic policing has evolved through various approaches, such as smart policing, predictive policing, cyber policing, intelligence-led policing, and electronic policing, aimed at improving the effectiveness of crime prevention and police public services. The implementation of this concept is realized through the use of facial recognition systems, body-worn cameras, command centers, cyber patrols, digital forensics, automatic license plate recognition, and big data analysis to detect crime patterns. From the perspective of Indonesian positive law, the use of digital technology in government systems is legitimized through Presidential Regulation Number 95 of 2018 concerning Electronic-Based Government Systems, which emphasizes the importance of integrating information technology in modern governance, including in public services and law enforcement. Furthermore, Law Number 25 of 2009 concerning Public Services mandates that public service providers must provide fast, effective, transparent, and accountable services. Therefore, modernizing the police system through futuristic policing is essentially an implementation of the principles of good governance and digital governance in the national law enforcement sector (Hartomo, 2025).

The development of futuristic policing is also influenced by the increasing threat of transnational and complex digital crime. Advances in information technology have given rise

to various forms of cybercrime, such as hacking, phishing, identity theft, ransomware, cyberterrorism, online fraud, the spread of hoaxes, digital content manipulation, and even dark web-based illegal trade. The transnational and difficult-to-detect nature of digital crime makes conventional policing approaches inadequate to ensure effective law enforcement. (Habibi, 2020) In this context, the use of artificial intelligence and digital forensics is an urgent need to support the investigation and prevention of modern crime. The legal basis for combating digital crime in Indonesia is regulated in Law Number 11 of 2008, as amended by Law Number 1 of 2024 concerning Electronic Information and Transactions. Article 30 of the ITE Law prohibits illegal access to electronic systems, while Article 32 regulates the prohibition of unlawful manipulation, alteration, removal, and transfer of electronic information. In addition, Article 5, paragraph (1) of the ITE Law emphasizes that electronic information and electronic documents constitute valid legal evidence. These provisions indicate that national law has begun to accommodate the use of digital technology in modern evidence and law enforcement systems, although its implementation still faces various regulatory and technical obstacles (Sitompul, 2024).

In practice, futuristic policing is not only related to the use of advanced technology, but also concerns the transformation of work culture and professionalism of police officers. Digital technology is used to increase the transparency of officer actions, strengthen internal oversight, and prevent abuse of authority in the law enforcement process. The use of body-worn cameras, electronic traffic law enforcement, command centers, and digital surveillance systems allows all officer actions to be electronically documented, making them easier to monitor and legally accountable. It aligns with the principles of accountability and professionalism in governance as stipulated in Law Number 30 of 2014 concerning State Administration, which emphasizes that every action of government officials must be based on the principles of legality, accountability, openness, and the public interest. Furthermore, Article 13 of Law Number 2 of 2002 concerning the Indonesian National Police emphasizes that the main duties of the National Police include maintaining public security and order, law enforcement, and protecting and serving the community. Therefore, digital technology within the police institution must be directed towards strengthening officer professionalism, improving the quality of public services, and realizing a modern and trustworthy law enforcement system (Afriansyah, 2024).

On the other hand, the development of futuristic policing also raises various legal and human rights issues, particularly regarding digital surveillance and the protection of public privacy. The use of facial recognition, artificial intelligence, data surveillance, and electronic monitoring has the potential to lead to misuse of personal data and violations of privacy rights if not strictly regulated through clear legal mechanisms. From a human rights perspective, protection of personal data and privacy is part of citizens' constitutional rights, as guaranteed in Article 28G paragraph (1) of the 1945 Constitution, which states that everyone has the right to protection of themselves, their families, their honor, their dignity, and their sense of security. Strengthening legal protection of personal data is further regulated in Law Number 27 of 2022 concerning Personal Data Protection, which emphasizes that personal data processing must be carried out legally, in a limited, specific, transparent, and responsible manner. Furthermore, Article 3 of the Personal Data Protection Law emphasizes that personal data protection aims to ensure recognition and respect for the importance of personal data protection as part of human rights. Thus, the implementation of futuristic policing must adhere to the principles of proportionality, necessity, legality, and accountability to prevent the use of digital technology from developing into a surveillance state instrument, which contradicts the principles of a democratic rule of law (Syarifuddin, 2020).

The digital transformation of the modern law enforcement system demonstrates that futuristic policing is a necessity for police institutional reform in Indonesia. Digital technology-based police modernization is necessary to improve the effectiveness of law enforcement,

officer professionalism, institutional transparency, and public trust in the police force. However, the implementation of futuristic policing also requires comprehensive legal reform to ensure that the use of digital technology provides legal certainty, democratic legitimacy, and clear oversight mechanisms. Viewed through the theoretical framework of Friedman's legal system and Pound's law as a tool of social engineering, such reform requires the integration of responsive legal regulation, institutional strengthening, and the transformation of police legal culture in response to technological developments. Therefore, the renewal of futuristic policing law in Indonesia must be directed toward establishing a modern digital policing system that is adaptive to technological developments, upholds the principle of due process of law, and is capable of realizing a professional, transparent, and accountable police institution within a democratic state governed by the rule of law.

Problems of Professionalism and Weaknesses of Futuristic Policing Regulations in the Indonesian Police System

The development of digital technology in Indonesia's law enforcement system has not been fully matched by an increase in police professionalism or by the establishment of regulations that adequately accommodate the development of futuristic policing. In empirical practice, the police institution continues to face fundamental problems, including abuse of authority, violence by officers, maladministration, discrimination in law enforcement, weak public services, and integrity-related issues. These concerns are reflected not only in individual incidents that have received widespread public attention through social media and mass media, but also in institutional oversight data. The Indonesian Ombudsman, for example, recorded 7,844 public reports concerning police services between 2019 and the first quarter of 2024, with reported allegations including procedural deviations, prolonged delays, and failures to provide adequate public services (OMBUDSMAN Republik Indonesia, 2024). Furthermore, in monitoring the handling of demonstrations against the proposed revision of the Regional Election Law in August 2024, the Ombudsman found indications of alleged physical violence against demonstrators during police security operations and identified other problems related to the handling of detainees and their belongings. These findings demonstrate that the expansion of digital communication and social media has intensified public scrutiny of police conduct and made allegations of misconduct more visible and subject to immediate public evaluation. The phenomenon of excessive use of force during demonstrations, abuse of authority in law enforcement processes, and unprofessional conduct in public services therefore indicates that cultural reform and police professionalism have not yet been optimally implemented. This is despite Article 13 of Law Number 2 of 2002 concerning the Indonesian National Police stating that the main duties of the Indonesian National Police are to maintain public security and order, enforce the law, and provide protection, guidance, and service to the community. Furthermore, Article 4 of the Police Law states that the Indonesian National Police aims to realize domestic security that upholds human rights. However, these empirical findings indicate a persistent gap between legal norms and law enforcement practices, which may undermine institutional legitimacy and public trust in the police.

The challenges of police professionalism in the digital era are also influenced by the low capacity of human resources to address developments in cybercrime and modern law enforcement technology. The proliferation of digital-based crimes such as hacking, online fraud, ransomware, the spread of hoaxes, digital content manipulation, online gambling, and personal data theft requires digital investigative capabilities based on artificial intelligence, digital forensics, and cyber intelligence. However, in practice, many law enforcement officers still lack adequate technical competence in handling cybercrime, resulting in slow and ineffective law enforcement. This situation is exacerbated by the uneven distribution of police technology infrastructure across regions, limited digital forensic laboratories, and weak data

integration between law enforcement agencies. This is despite Article 14 paragraph (1) letter g of Law Number 2 of 2002 concerning the Indonesian National Police, granting the National Police the authority to conduct investigations and prosecutions of all crimes in accordance with criminal procedure law and other laws and regulations. These provisions normatively require the police to be professionally and technologically prepared to deal with modern forms of crime. However, empirically, the development of criminal technology has moved far faster than the capacity of law enforcement officers, creating a disparity between the development of digital crime and the effectiveness of the national law enforcement system.

On the other hand, the implementation of futuristic policing in Indonesia also faces serious regulatory weaknesses. To date, there are no specific regulations governing the use of artificial intelligence in law enforcement systems and police operations. The use of facial recognition, predictive policing, cyber surveillance, and big data collection by law enforcement officers continues to be carried out without a comprehensive and integrated legal framework. This legal vacuum creates legal uncertainty regarding the limits of digital surveillance authority by state officials. Yet, the principle of the rule of law, as affirmed in Article 1 paragraph (3) of the 1945 Constitution, requires that all government actions be based on law and legally accountable. Furthermore, Article 28D paragraph (1) of the 1945 Constitution guarantees the right of every person to recognition, guarantees, protection, and fair legal certainty. However, the rapid development of digital technology has not been matched by the establishment of clear legal norms governing the limits of artificial intelligence in law enforcement, mechanisms for supervising the use of digital data, and standards of algorithmic accountability in modern policing systems. As a result, the implementation of futuristic policing carries the risk of abuse of power and excessive digital surveillance that may violate the principle of due process of law.

Another crucial issue in futuristic policing is the weak protection of personal data and the potential for human rights violations through digital surveillance. The use of surveillance technologies such as artificial intelligence-based CCTV, facial recognition systems, digital wiretapping, and monitoring of social media activity has the potential to threaten people's right to privacy if not strictly regulated. Several empirical cases, leaks of personal data, and misuse of electronic data demonstrate the weakness of data security governance in Indonesia. This is despite Article 28G paragraph (1) of the 1945 Constitution, which guarantees the right to personal protection, a sense of security, and protection from threats. Furthermore, Law Number 27 of 2022 concerning Personal Data Protection emphasizes that personal data processing must be conducted lawfully, in a limited, specific, transparent, and accountable manner. However, the implementation of digital surveillance by law enforcement officials still lacks a robust independent oversight mechanism, potentially giving rise to surveillance state practices that contravene the principles of democracy and human rights. Empirically, public concern about the misuse of personal data is growing as the practice of digital surveillance by the state continues to expand without clear regulations regarding the limits of authority, control mechanisms, and protection of citizens' rights.

The legal problems of futuristic policing are also evident in the legality of digital evidence and the synchronization of electronic law enforcement regulations. Although Article 5 paragraph (1) of Law Number 11 of 2008, as amended by Law Number 1 of 2024 concerning Electronic Information and Transactions, recognizes electronic information and electronic documents as valid legal evidence, in judicial practice, debates often arise regarding the validity of digital evidence, chain of custody, electronic data authentication, and digital forensic evidence standards. Furthermore, the Criminal Procedure Code (KUHAP), as the national criminal procedural law, is still dominated by a conventional evidentiary paradigm and therefore has not fully accommodated developments in digital technology in modern investigation and evidence processes. This lack of regulatory synchronization often causes the handling of cybercrime cases to encounter technical and legal obstacles. Furthermore, the

absence of national standard operating procedures regarding the use of artificial intelligence, predictive analytics, and digital surveillance in police operations indicates a regulatory lag between technological developments and national legal developments. It illustrates that police legal reform in Indonesia remains partial and has not been able to build a comprehensive, futuristic policing framework based on legal certainty.

Comparatively, several countries have adopted advanced technologies in policing, although the forms and levels of implementation vary according to their respective institutional and legal systems. In Japan, the development of technology-based policing has been associated with the broader adoption of advanced information and communication technologies to support crime prevention, public security, and police modernization. Similarly, Singapore has developed technology-oriented policing within a highly digitalized governance environment, in which technological innovation and data-based systems increasingly support public security and law enforcement. In the United Kingdom, the development of predictive and algorithmic policing has been more explicitly documented through the use of the Harm Assessment Risk Tool (HART) by Durham Constabulary. HART represents one of the early examples of an algorithmic model deployed operationally to support police risk assessment and decision-making, while simultaneously generating legal and ethical debates concerning proportionality, transparency, bias, and accountability (Oswald, 2018). In the United States, body-worn cameras have been widely adopted as technological instruments capable of increasing the visibility of police conduct and strengthening institutional accountability, although their effectiveness remains dependent on data retention policies, activation requirements, and the extent to which recorded data can be used for evaluation and disciplinary purposes (Murphy, 2019). Recent empirical research has also demonstrated that body-worn camera footage can strengthen the evidentiary basis for the adjudication of citizen complaints and increase the likelihood of disciplinary outcomes where sufficient evidence of police misconduct exists. In South Korea, the development of smart technology-based policing has included the use of artificial intelligence, big data, and other intelligent technologies in preventive police activities, including predictive policing and intelligent video surveillance systems. However, the expansion of these technologies has also generated concerns regarding privacy, personal information self-determination, algorithmic bias, and the need for corresponding legal and institutional safeguards (Song, 2023). These comparative developments demonstrate that the transition toward futuristic policing requires not merely the adoption of advanced technologies, but also the establishment of legal safeguards and institutional mechanisms capable of ensuring accountability, transparency, privacy protection, and the responsible use of technological systems.

Compared to these countries, Indonesia still faces regulatory lags, limited technological infrastructure, weak digital oversight, and suboptimal human rights protection in the implementation of futuristic policing. Therefore, comprehensive police legal reform is needed through the establishment of specific regulations on futuristic policing, strengthening personal data protection, increasing the digital capacity of officers, updating criminal procedural law based on digital evidence, and developing a transparent and accountable police technology oversight system so that the digital transformation of the police in Indonesia continues to run in accordance with the principles of a democratic rule of law and the protection of human rights.

Legal Updates on the Futuristic Policing System Based on Digital Technology to Improve Police Professionalism and Accountability in Indonesia

Digital transformation in the law enforcement system demands reform of police law that can accommodate futuristic policing developments in a comprehensive, adaptive manner, and based on the principles of a democratic rule of law. The legal reform must begin with a reconstruction of the legal substance in Law Number 2 of 2002 concerning the Indonesian

National Police, which, to date, still orients itself towards a conventional policing model and does not specifically regulate the use of digital technology in modern police operations. Regulatory reform needs to be directed at establishing legal norms regarding the use of artificial intelligence, predictive policing, facial recognition systems, cyber surveillance, body-worn cameras, command centers, and electronic policing systems in law enforcement. Specifically, the government and the House of Representatives (DPR) need to draft a revision of the Police Law by adding a special chapter on futuristic policing and digital police governance, which outlines the limits of authority for the use of digital technology, principles of algorithmic accountability, electronic surveillance standards, and mechanisms for protecting the public's right to privacy. Furthermore, it is necessary to establish a Government Regulation and a Regulation of the Chief of Police concerning operational standards for the use of artificial intelligence in investigations, digital data collection, and electronic surveillance to ensure that the implementation of police technology provides legal certainty and prevents abuse of authority. This step is crucial to realizing the principle of legality as stipulated in Article 1 paragraph (3) and Article 28D paragraph (1) of the 1945 Constitution, which guarantees that all actions by state officials must be based on law and provide fair legal certainty to the public.

Legal reforms to futuristic policing must also be directed at strengthening personal data protection systems and human rights-based digital surveillance. The use of artificial intelligence, facial recognition, cyber patrols, and big data surveillance by police officers has the potential to significantly violate public privacy rights if not accompanied by strict and transparent oversight mechanisms. Therefore, the implementation of futuristic policing must be integrated with the principle of human rights protection as guaranteed in Article 28G paragraph (1) of the 1945 Constitution and Law Number 39 of 1999 concerning Human Rights. Specifically, the establishment of a judicial oversight mechanism for the use of digital surveillance technology by police officers through court authorization for certain surveillance activities, particularly those related to access to personal data, electronic wiretapping, and monitoring of the public's digital communications. Furthermore, the Indonesian National Police (Polri) needs to establish an independent, information technology-based oversight body tasked with auditing the use of artificial intelligence, digital surveillance systems, and electronic data security in police operations. Strengthening personal data protection must also be implemented through the integration of Law Number 27 of 2022 concerning Personal Data Protection with a digital policing system so that the collection, storage, and processing of public data is performed in a limited, proportional, transparent, and accountable manner in accordance with the principles of due process of law and democratic policing.

In terms of law enforcement, futuristic policing reforms must be realized through reforms to the digital evidence-based and investigation system, which are more modern and integrated. Although Article 5 paragraph (1) of Law Number 11 of 2008, as amended by Law Number 1 of 2024 concerning Electronic Information and Transactions, recognizes electronic information and electronic documents as valid legal evidence, the national criminal procedural law system is still not fully capable of accommodating the complexities of digital evidence. Therefore, it is necessary to update the Criminal Procedure Code through specific regulations regarding digital evidence, electronic chain of custody, digital data authentication standards, artificial intelligence-assisted investigation, and digital forensics procedures in criminal investigation and evidence processes. Specifically, the Indonesian National Police (Polri) needs to establish a national digital forensics center integrated with the national cybercrime system and supported by modern digital laboratories at the regional level. Furthermore, national standardization is needed regarding the use of body-worn cameras and electronic recording during examinations, arrests, and investigations to increase transparency in police actions and prevent abuse of authority. The benefit of this technology should be mandatory in certain police actions as a form of legal protection for both the public and law enforcement officers.

Strengthening police professionalism in the era of futuristic policing must also be achieved through legal culture reform and increasing the capacity of digital technology-based human resources. In practice, the low digital competence of police officers remains a major obstacle in addressing the development of cybercrime and modern law enforcement systems. Therefore, police education reform is urgently needed. Specifically, the police education curriculum needs to be reconstructed to include subjects on artificial intelligence policing, cyber law, digital forensics, personal data protection, digital surveillance ethics, and human rights in the technological era. Furthermore, the Indonesian National Police (Polri) needs to establish a cyber academy and a modern police technology training center in collaboration with universities, research institutions, and the national and international digital technology sector. The promotion system within the police institution also needs to be based on a merit system and digital competence to encourage officer professionalism in facing the challenges of futuristic policing. The step aligns with the principles of professionalism and accountability as stipulated in Law Number 30 of 2014 concerning Public Administration, which emphasizes that government administration must be based on the principles of professionalism, effectiveness, and the public interest.

In addition to regulatory reform and increasing the capacity of officers, legal reforms for futuristic policing must also be directed at strengthening electronic oversight systems and institutional transparency within the police force. In the digital era, public scrutiny of law enforcement officers' actions is increasingly strengthened through social media and advances in information technology. Therefore, the Indonesian National Police (Polri) must develop an internal and external oversight system based on digital governance and public information transparency. Specifically, an integrated police accountability system must be established that allows the public to conduct oversight, file complaints, and monitor services and law enforcement electronically in real time. Likewise, the use of body-worn cameras, dashboard cameras, and a national command center must be integrated with a digital audit system accessible to internal and external oversight bodies such as the National Police Commission (Kopolnas) and the Indonesian Ombudsman. Strengthening such oversight is crucial to minimizing abuse of authority, maladministration, and violent practices by officers, which have been contributing to the decline in public trust in the police force. The implementation of digital transparency is also in line with Law Number 14 of 2008 concerning Public Information Transparency, which guarantees the public's right to receive transparent and accountable information from public bodies.

The ideal model for futuristic policing legal reform in Indonesia must be built through the integration of digital technology, police professionalism, human rights protection, and the principles of a democratic state based on the rule of law. Futuristic policing should not be understood merely as the modernization of law enforcement technology, but rather as an instrument of institutional reform of the police, oriented towards transparency, accountability, effective public service, and strengthening public trust. From the perspective of Lawrence Friedman's theory, futuristic policing reform must be carried out comprehensively through harmonization of legal substance, institutional structure, and police legal culture. Therefore, police legal reform in Indonesia must be directed at the formation of comprehensive digital policing regulations, the development of equitable technological infrastructure, increasing the capacity of technology-based officers, strengthening independent oversight, and protecting the public's right to privacy in the use of digital technology. Thus, futuristic policing in Indonesia can develop as a modern, professional law enforcement system, adaptive to technological developments, upholding the principle of due process of law, and capable of realizing a transparent, humanistic, and trusted police institution in a democratic state based on the rule of law.

CONCLUSION

The study reveals that the development of the digital revolution and the era of society 5.0 has driven the transformation of the law enforcement system from a conventional model to futuristic policing based on digital technology. This transformation is realized through artificial intelligence, predictive policing, cyber policing, digital forensics, body-worn cameras, command centers, and electronic policing, which aim to improve the effectiveness of law enforcement, officer professionalism, institutional transparency, and the quality of police public services. However, the implementation of futuristic policing in Indonesia still faces various serious problems, both in terms of officer professionalism and weaknesses in legal regulations. Empirically, there is still abuse of authority, maladministration, low digital capacity of officers, weak internal oversight, and declining public trust in the police institution due to various cases that go viral on social media. Furthermore, normatively, there is still a legal vacuum regarding the use of artificial intelligence in law enforcement, weak protection of personal data, problems with the legality of digital evidence, the potential for human rights violations through digital surveillance, and disharmony between laws and regulations and modern technological developments. Therefore, legal reform for futuristic policing is urgently needed through the reconstruction of digital governance-based police regulations that guarantee legal certainty, human rights protection, accountability in the use of technology, and strengthen the professionalism of officers in a democratic state governed by the rule of law. This legal reform must be carried out comprehensively through harmonization of legal substance, strengthening institutional structures, increasing the capacity of police human resources, and developing a digital legal culture that is adaptive to technological developments and oriented towards strengthening public trust.

Based on these conclusions, this study recommends that the government and the House of Representatives immediately revise Law Number 2 of 2002 concerning the Indonesian National Police by including specific provisions regarding futuristic policing, the use of artificial intelligence, digital surveillance, personal data protection, and technological accountability mechanisms within the law enforcement system. Furthermore, it is necessary to establish derivative regulations in the form of Government Regulations and Regulations of the Chief of Police that govern operational standards for the use of digital technologies such as facial recognition, body-worn cameras, cyber patrols, and predictive policing to ensure their implementation provides legal certainty and does not conflict with human rights principles and due process of law. The Indonesian National Police (Polri) also needs to undertake institutional reforms by strengthening digital technology-based education and training, establishing a national digital forensics center, increasing cyber policing capacity, and implementing a digital competency-based merit system within the police career system. Furthermore, oversight of police technology use must be strengthened through the establishment of an independent digital audit mechanism and the involvement of external oversight bodies to prevent abuse of authority and surveillance state practices. Therefore, reforming futuristic policing laws in Indonesia is expected to create a police institution that is professional, modern, transparent, humane, and adaptable to technological developments, while also enhancing the effectiveness of law enforcement and public trust within a democratic, rule-of-law framework.

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