



Legal Challenges and Opportunities in the Digitalization Era

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ABSTRACT

Digitalization has become a transformational force in various sectors of life, including the legal system. These changes require the law to adapt rapidly to dynamic and disruptive technological developments. This article aims to examine the legal challenges and opportunities in the digital era and formulate strategies for adapting national law to these developments. This research uses a normative juridical method with a conceptual and regulatory approach. The study results indicate that the main legal challenges in the digital era include regulatory gaps regarding new technologies, weak personal data protection, threats to digital human rights, and ethical issues in the use of artificial intelligence. On the other hand, digitalization opens up opportunities for increased efficiency, transparency, and access to justice. Therefore, inclusive legal reform, strengthening of personal data monitoring institutions, increasing digital literacy for law enforcement officers, and protecting human rights in the digital space are needed. This study is expected to contribute to the development of an adaptive, progressive, and technology-based Indonesian legal system.

INTRODUCTION

The development of information and communication technology (ICT) over the past two decades has pushed the world into a digital era that transcends geographical, social, and legal boundaries. Digitalization has not only transformed the way humans interact but has also reshaped previously static institutional structures and legal systems. In this context, the law faces the challenge of remaining relevant amidst the rapid and disruptive digital transformation. The advent of the internet, artificial intelligence, big data, and blockchain technology has expanded the traditional legal landscape into a more complex realm, known as the era of legal digitalization. This transformation impacts the substance of law, the law enforcement process, and even the ethics of the legal profession.

In Indonesia, the impact of digitalization is beginning to be felt in various sectors, from government (e-government), the digital economy (e-commerce, fintech), to the judicial system (e-court and e-litigation). The government has responded by issuing various regulations, such as Law Number 11 of 2008 concerning Electronic Information and Transactions (ITE Law) and Law Number 27 of 2022 concerning Personal Data Protection (PDP Law). However, the reality on the ground shows that legal regulations often lag behind rapidly evolving technological innovation.

One crucial issue in digital law is the protection of personal data. In the digital era, data has become a highly valuable "new asset" and can be used for various purposes, including business, politics, and national security. Data leaks, unauthorized data collection, and misuse of personal information are serious challenges that require an adaptive legal system to address.

On the other hand, digitalization also opens up significant opportunities for the legal world. Technology can accelerate legal administration processes, facilitate public access to justice, and increase efficiency in legal services through the application of artificial intelligence (AI), blockchain, and big data analytics in the legal profession.

However, digital transformation is inextricably linked to ethical, legal, and institutional challenges. Issues of digital inequality (the digital divide), the risk of algorithmic bias in legal decisions, and the reliance on automated systems demand a comprehensive overhaul of the legal framework.

Against this backdrop, it is crucial to examine how the Indonesian legal system is responding to the digital era. This study will analyze the challenges of legal regulation in the digital age, evaluate existing policies, and provide strategic recommendations for realizing a legal system responsive to technological disruption.

LITERATURE REVIEW

The Concept of Digitalization and Technological Transformation

Digital transformation is a change in the way work is handled using information technology to achieve efficiency and effectiveness. Digitization is the process of converting information from physical to digital form, while digitalization is the use of digital information to improve business processes.

Digitization is the process of converting systems, data, and services from analog to digital. In the context of government and law, digitalization encompasses the use of information technology in public administration processes, legal services, and legal decision-making. According to Schwab, the digital revolution is part of the Fourth Industrial Revolution, which is merging the physical, digital, and biological worlds on an unprecedented scale.

Digital transformation has impacted the structure of legal institutions, shifting legal service models, and the emergence of online forms of legal engagement. Technologies such as blockchain, artificial intelligence, cloud computing, and big data are accelerating this paradigm shift in contemporary legal systems.

Law and Information Technology

Information law and technology, also known as cyber law, is a branch of law that discusses the relationship between law and digital technology, including the regulation of data, electronic information, privacy, and online transactions. According to Abdul Salam, law should not merely be a rigid norm, but must be an adaptive system capable of facing the challenges of the times, including the digital era.

Law and technology are two distinct yet interconnected entities. The use of information technology requires law enforcement. Crimes in the information technology sector are increasing and evolving over time. Therefore, legal regulations need to be formulated to address and address all issues arising in the information technology sector. The terms "technology" and "information" have a number of terms. These terms are often used in education, including technology education, educational technology, information technology, information and communication technology, educational technology, new educational technology, information skills, information literacy, and information learning.

Law is a collection of regulations (commandments and prohibitions) that regulate the order of a society and therefore must be obeyed by society.

The development of law and information technology in Indonesia is marked by the ratification of several strategic laws such as:

1. Law Number 11 of 2008 concerning Electronic Information and Transactions (ITE), which regulates electronic documents, electronic transactions, and cybercrime.
2. Law Number 27 of 2022 concerning Personal Data Protection, which provides the legal basis for protecting citizens' digital privacy rights.

However, many critics say that the regulation is still partial and does not fully address the complexities of today's digital technology.

Personal Data Protection in the Digital Age

Personal data is part of an individual's right to privacy and must be protected. Globally, data protection is strictly regulated by the General Data Protection Regulation (GDPR) in force in the European Union. The GDPR details the rights of data subjects and the obligations of data controllers. Meanwhile, in Indonesia, the Personal Data Protection Law is the primary instrument

governing the collection, storage, processing, and distribution of personal data. However, according to Fatimah, the effective implementation of the Personal Data Protection Law remains hampered by weak oversight mechanisms and the lack of an independent data protection authority.

Responsive and Progressive Theories in the Legal System

The responsive legal theory put forward by Philippe Nonet and Philip Selznick emphasizes that good law is law that is able to respond to social needs quickly and accommodatively. Law is no longer viewed as a static set of rules, but rather as a dynamic and adaptive entity. A responsive and adaptive legal system will be more effective in achieving justice and meeting the interests of society. Responsive law focuses not only on procedural justice but also on substantive justice that takes into account the social context and community needs.

In the context of the digital era, law cannot simply rely on legal positivism; it must incorporate an interdisciplinary approach focused on protecting citizens' fundamental rights online. Similarly, Satjipto Rahardjo advocated the concept of law as a tool of social engineering, where law must serve as a tool for creating substantial justice in the face of the dynamics of the times.

Satjipto Raharjo also emphasized the importance of progressive law, namely law that is not fixated on formalistic texts, but rather prioritizes substantive justice and social morality. In the digital context, progressive law encourages legal reform so as not to be left behind by technological advances.

METHODOLOGY

This research is a normative legal study that uses a statutory, conceptual, and comparative approach. Primary data is obtained from statutory regulations such as Law Number 11 of 2008 concerning Electronic Information and Transactions, Law Number 27 of 2022 concerning Personal Data Protection, and international instruments. Secondary data includes literature, journals, articles, and legal expert opinions.

The analysis was conducted qualitatively with a systematic approach to legal texts and scientific thinking to identify legal challenges and strategies in the digital era.

RESEARCH RESULT

The Impact of Digital Transformation on the Legal System in Indonesia

The Indonesian legal system is a synthesis of various legal influences, rooted in the history of Dutch colonization and enriched by the country's social and cultural diversity. Indonesia's adoption of the Civil Law system, which was largely a result of the adoption of the principle of concordance during Dutch colonialism, reflects the desire to build a structured and well-documented legal foundation. However, the uniqueness of Indonesia's legal system also lies in the influence of customary law and Islamic law, which emerged from the ethnic and religious diversity of its population. Furthermore, the absorption of concepts from other countries' legal systems, including the common law system, is inevitable in the era of globalization and evolving international law.

To examine the dynamics of the Indonesian civil law system, we can use Lawrence M. Friedman's theoretical lens, considering three main aspects: legal structure, legal substance, and legal culture. Friedman, known for his work in legal history and legal sociology, emphasized the importance of social and cultural context in understanding law. In the Indonesian context, this involves analyzing how the civil law system interacts with elements of customary law and Islamic law, and how informal legal practices and procedures influence formal legal structures. Legal substance, according to Friedman, encompasses the content of the law itself, such as statutes and regulations. In Indonesia, this relates to how laws and regulations are formed and changed within the country's social, cultural, and political context. This opens up space for understanding how law is formed and reformed to meet societal needs and challenges, and how it reflects existing social values and norms. The third aspect, legal culture, is a key concept in Friedman's theory. It refers to societal attitudes and values toward the law. In the Indonesian context, this can encompass societal perceptions and reactions to various aspects of the law, from customary law to laws derived from the civil law system. Understanding this legal culture is crucial for analyzing how the law is complied with, implemented, and changed. Adaptation to social and technological developments is crucial for Indonesian law. Technology, particularly digitalization, can improve the efficiency and effectiveness of the law. The Indonesian legal system must utilize digital technology to keep pace with changes in legal substance and legal culture and meet societal demands for faster, more transparent, and more accessible legal processes. This digitalization is changing how legal institutions operate and how the public interacts with the legal system, enabling changes oriented toward justice and efficiency.

The development of digital technology has brought fundamental changes to the national legal system, not only in terms of substantive law but also in procedural law and law enforcement practices. For example, the introduction of the e-Court and e-Litigation systems, initiated by the Supreme Court, demonstrates that judicial proceedings can now be conducted online, without the parties physically being present in the courtroom.

Technology also facilitates access to law through the digitization of legal documents and jurisprudence, which are openly accessible to the public. This contributes to transparency and accountability in the legal system. Furthermore, legal professionals such as advocates and notaries are beginning to adopt legaltech for consultation services and automated legal document creation. However, this adaptation remains partial and falls short of addressing the substance of comprehensive legal reform. Most positive laws in Indonesia are still analog-based and do not yet address new phenomena such as artificial intelligence (AI), smart contracts, or the issue of legal liability in automated systems. Therefore, digital transformation truly demands a reorientation of the legal paradigm from normative and static to dynamic and responsive.

Legal Challenges in Facing the Digital Era

Indonesia's technological infrastructure influences the success of the digital justice system. Technological infrastructure differs between urban and rural areas, impacting the implementation of the digital legal system. While digitalization offers efficiency, it also raises a number of new and complex legal issues. The main challenges facing Indonesia's legal system include:

1. Regulatory Gaps on New Technologies

Technology advances faster than the legislative process. Existing regulations are often reactive, not proactive. For example, although Indonesia already has Constitution Electronic Information and Transactions And Constitution Personal Data Protection, there is no comprehensive regulation regarding the protection of algorithms, blockchain technology, and artificial intelligence that can make decisions independently.

2. Weaknesses in Personal Data Protection

Personal data is a crucial asset in the digital ecosystem. Unfortunately, the public is not yet fully aware of the importance of maintaining digital privacy. Meanwhile, the Personal Data Protection Law, passed in 2022, still faces various implementation challenges, such as limited resources for supervisory agencies, unpreparedness of the private sector, and weak administrative law enforcement mechanisms.

3. Cybercrime

Cybercrime is evolving in increasingly sophisticated forms, ranging from online fraud and ransomware attacks to the spread of disinformation. Law enforcement against cybercrime is often hampered by interstate jurisdiction, the anonymity of perpetrators, and a lack of capacity in digital forensics.

4. Professional Ethics of Law and Technology

The application of technology in legal practice also raises ethical challenges. For example, the use of artificial intelligence in predicting decisions or drafting legal documents can blur the lines of professional responsibility. Furthermore, the risk of algorithmic bias can threaten the principle of substantive justice if digital systems are not designed in an inclusive and accountable manner.

Strategy for Adapting the National Legal System to Digitalization

Facing the digital era effectively requires strategic and holistic steps, including:

1. Reformulation and Harmonization of Regulations

Existing laws need to be revised and harmonized to accommodate new technological developments. The government needs to establish a flexible, adaptive legal framework based on technology-neutral principles to ensure they remain current.

2. Strengthening Institutions and Law Enforcement

The capacity of legal institutions such as the police, prosecutors, and courts must be strengthened, particularly in the areas of digital forensics and cross-jurisdictional case handling. A personal data oversight body must also be established independently and given adequate authority.

3. Technology-Responsive Legal Education

Higher education institutions need to update their curricula to include courses in digital law, information technology law, and legal ethics in the era of artificial intelligence. Legal education should no longer be solely textual but should equip students with multidisciplinary understanding.

4. **International Cooperation**

Global cooperation is crucial given the prevalence of transnational cybercrime. Indonesia needs to strengthen its participation in international treaties such as the Budapest Convention on Cybercrime and establish bilateral cooperation on intelligence exchange and digital extradition.

DISCUSSION

The development of the digital era has had a significant impact on the national legal system. Digitalization has not only changed the way humans interact but also forced the legal system to transform rapidly and adaptively. The use of technologies such as the internet, artificial intelligence, big data, and blockchain has created various new legal issues that have not been fully anticipated by existing legal frameworks. The main challenges faced in the digital era include:

1. Regulatory lag in responding to new technological developments
2. Weak personal data protection and digital information security
3. Threats to human rights in cyberspace
4. As well as ethical challenges in the use of algorithmic technology in legal processes.

However, digitalization also presents strategic opportunities to strengthen the efficiency, transparency, and accessibility of the legal system. The use of digital technologies such as e-Court, legal tech, and integrated data systems can accelerate legal reform and expand the reach of justice, especially in remote areas. Indonesia's legal system is required to be not only reactive, but also responsive and anticipatory in facing changing times.

CONCLUSIONS AND RECOMMENDATIONS

Based on the discussion and conclusions above, there are several suggestions that can be strategic recommendations for legal development in the digitalization era:

1. **Digitalization-Based Legislative Reform**
The government and lawmakers need to accelerate legal reform by drafting legislation that is not merely reactive but also futuristic. Regulations on artificial intelligence, digital contracts, algorithm protection, and citizens' digital rights must be priorities for future legislation.
2. **Strengthening Personal Data Protection Institutions**
There is a need to establish an independent authority fully responsible for the oversight and protection of personal data, as mandated by Law No. 27 of 2022. This authority must be given adequate authority, resources, and systems to effectively address privacy violations.

3. Digital Education and Literacy for Law Enforcement Officers
It is necessary to increase the capacity of legal officials (judges, prosecutors, police, advocates, notaries, etc.) in understanding digital technology, cyber law, and digital ethics through regular training and updating the legal education curriculum.
4. Developing an Inclusive Digital Legal Infrastructure
The government must expand technology-based legal infrastructure that is easily accessible to all levels of society, including those in 3T (frontier, outermost, and disadvantaged) areas. This can be achieved through the digitization of legal aid services, online legal libraries, and online legal consultations.
5. Strengthening Digital Human Rights
States must guarantee the protection of human rights in the digital space, such as the rights to privacy, freedom of expression, and information security. Any restrictions on digital rights must be subject to the principles of legality, proportionality, and accountability, which can be legally tested.

By implementing an adaptive, responsive, and participatory legal approach, Indonesia will be better prepared to face the challenges of the digital era and realize a just, inclusive, and technology-based legal system.

FURTHER STUDY

Future studies should explore the practical implementation and impact of these strategic legal recommendations in the context of Indonesia's digital transformation. Particular attention should be given to evaluating the effectiveness of newly established institutions like the personal data protection authority, and assessing the readiness of legal professionals in adapting to digital legal frameworks. Research can also investigate the accessibility and inclusiveness of digital legal infrastructure in remote areas, as well as the extent to which digital human rights are protected and enforced. Comparative studies with other countries may provide valuable insights for shaping more robust and adaptive legal systems in the digital era.

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