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## Legal Review of Termination of Unilateral Agreements in the View of Law and Human Rights in the Era of Industrial Revolution 4.0

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**Abstract.** Human rights are inherent in every human being who has the same rights, including unilateral termination of an agreement, then these human rights are disturbed and not protected. The research method uses normative legal research, namely the doctrinal method, namely inventorying positive law, finding legal principles and doctrines, synchronizing existing laws and regulations and conducting research by reviewing and examining various existing literature. With the Legislative Approach, Historical Approach, Comparative Approach, and Conceptual Approach. The results of the study indicate that unilateral termination of an agreement has the potential to be categorized as an unlawful act if the unilateral termination of the agreement is carried out without a valid reason, violates the principles of propriety and law, and causes losses to other parties. In addition, unilateral termination of an agreement if carried out without a valid reason violates human rights related to the right to legal certainty and human freedom without discrimination.

**Keywords:** Termination; Unilateral Agreement; Human Rights

### 1. BACKGROUND

Agreements in Indonesian positive law are regulated in Book III on the Burgerlijk Wetboek (BW) Agreement translated by Subekti and Tjitrosudibjo into the Civil Code (KUHPerdota). According to Article 1313 of the Civil Code, an agreement is defined as an agreement which means an act by which one or more people bind themselves to one or more other people. In addition, the law of agreements is the law that regulates matters relating to the issue of agreements, which are made by two or more people, so that the requirement for an agreement to be made is that it is made by at least 2 people. (Gunawan Widjaja: 2007). In order for an agreement to be valid and binding for the parties who make it, an agreement must meet 4 (four) conditions for a valid agreement regulated in Article 1320 of the Civil Code, as follows: (a) agreement of those who bind themselves; (b) Capacity to make a contract; (c) A certain thing; and (d) A lawful cause. These conditions are cumulative in other words, all must be met by the parties. If the conditions as in letters (a) and (b) are not met, then the agreement has the potential to be canceled by one of the parties, while if the conditions as in letters (c) and (d) are not met, then the agreement is null and void. Departing from Article 1313 of the Civil Code, it can be understood that the consequences of the agreement for the parties who make it are that mutually binding rights and obligations have been born between one party and the other, as also emphasized in Article 1338 paragraph 1 of the Civil Code, which states that all agreements made legally apply as laws for those who make them or are known as the principle of pacta sunt servanda (sanctity of contract). The principle of pacta sunt servanda is the principle that

judges or third parties must respect the substance of the agreement made by the parties legally, as befits a law. Judges or third parties may not intervene in the substance of the contract made by the parties. Article 1338 paragraph 3 of the Civil Code also states that agreements must be carried out in good faith. This formulation gives us all the meaning that as something agreed and approved by the parties, the implementation of the achievements in each agreement must be fully respected, in accordance with the wishes of the parties at the time the agreement was closed/signed. Legal problems will arise if one party terminates the agreement unilaterally, in general unilateral termination is carried out by one party if the conditions for implementing the agreement are no longer beneficial or detrimental to the party. Unilateral termination of the agreement can result in the injured party filing a lawsuit for unlawful acts with the local district court or the district court that was agreed upon, because in principle an agreement cannot be terminated unilaterally as regulated in Article 1338 paragraph 2 of the Civil Code, which reads: the agreements cannot be withdrawn other than by agreement of both parties, or for reasons that are stated by law to be sufficient for that.

## **2. RESEARCH METHOD**

In this study, using normative legal research, namely the doctrinal method (AniPurwati, 2020: 15). To study the implementation n rules or norms in positive law (Johnny Ibrahim, 2006: 295). In addition, to inventory positive law, find legal principles and doctrines, synchronize existing laws and regulations and conduct research by reviewing and examining and tracing various existing literature. (Irwansyah, 2021: 133). With several approaches, the first is the Legislative Approach to understand the hierarchy and principles in laws and regulations (Peter Mahmud Marzuki, 2017: 137). Second, the historical approach is carried out to understand historical values (I Made Pasek Diantha, 2017: 5). Third, the comparative approach is one way to understand the law or a way to conduct scientific research and studies to gain knowledge about the law. (Bernard Arief Sidharta, 1999: 192). The function of comparative law is similarities and differences (Sunaryati Hartono, 2006: 196). Fourth, the Conceptual Approach is carried out by studying the concepts, theories and opinions of experts that are related to the object being studied, and studying the concepts, theories and opinions of experts (Amiruddin & Zainal Asikin, 2016: 17). Specifically related to the Termination of Unilateral Agreements in the Perspective of Law and Human Rights. While the secondary legal materials in this study are all publications on law including textbooks, legal dictionaries, legal journals, and comments on court decisions and research results, works from legal circles and so on. (Saifullah, 2018: 52).

### 3. RESULTS AND DISCUSSION

In contract law, it is known as the principle of *pacta sunt servanda* which literally means that the agreement is legally binding. The author needs to convey in advance that the term agreement is also known in the term contract as a form of embodiment of a written agreement. The full term of *pacta sunt servanda* is *pacta convent quae neque contra leges neque dolo malo inita sunt omnido observanda sunt*, which means a contract that is not made illegally and does not originate from fraud must be fully followed. (Munir Fuady, 2013:148). Actually, what is meant by the theory of *pacta sunt servanda*, which literally means that the contract is binding, is a theory that originates and develops in the Continental European legal tradition, which teaches that for a contract that is made legally and in accordance with applicable law, and also in accordance with customs and propriety, so that it is assumed as a contract made in good faith, then the clauses in such a contract bind the parties who make it, where its binding power is equivalent to the binding of a law, and therefore the implementation of such a contract must not be detrimental to the opposing party in the contract or to a third party outside the parties to the contract (Munir Fuady, 2013:148). The affirmation of Article 1313 of the Civil Code states that an agreement is an act by which one or more persons bind themselves to one or more other persons. In general, an agreement is an agreement between the parties about something that gives rise to a legal relationship, gives rise to rights and obligations and if not carried out as agreed will result in sanctions. The purpose of making an agreement is as a basis for resolution if problems arise in the future so that the parties are protected, obtain legal certainty, and justice. (Niru Anita Sinaga, 2018). The principle of *pacta sunt servanda* is reflected in Article 1338 paragraphs 1 and 3 of the Civil Code which states that all agreements made legally apply as laws for those who make them, and agreements must be carried out in good faith. In addition, Article 1339 of the Civil Code states that agreements are not only binding on what is expressly stated therein, but for everything that by its nature is required by propriety, custom, or law. According to Suharnoko, the will of the parties expressed in the agreement is the basis for binding an agreement in French contract law (Suharnoko, 2004: 3). This will can be expressed in various ways, both verbally and in writing, and binds the parties with all its legal consequences (Donald Harris and Dennis Tallon in Suharnoko, 2004: 4)

Seen from the case in decision Number 1779 K/Pdt/2024 concerning the default of PT. Cargill Indonesia with Hasbentuah Saragih, this decision is based on Mr. Hasbentuah for the payment of a penalty/fine of 2% per month on the amount that has not been paid as of October 2, 2016 until settlement of Rp.1,789,042,680.00 for ordering fish feed and over time it turned

out to suffer losses due to the death of fish that had not been harvested so that the payment of fish feed was gradually hampered.

Judging from the *judex facti* in this case does not conflict with the law and/or statutes, then the cassation application filed by the Applicant for cassation PT. Cargill Indonesia must be rejected based on considering Law Number 48 of 2009 concerning judicial power.

Article 1266 of the Civil Code stipulates that a default by one party does not automatically terminate the agreement, but rather the termination of the agreement must be requested to the judge. However, in practice, the parties usually ignore Article 1266 of the Civil Code so that in the event of a default the agreement can be terminated unilaterally. (Rahmadita, A., & Cahyono, A, 2023). In accordance with Book III of the Civil Code which adopts an open system, the parties are free to enter into agreements with anyone and determine the terms, implementation and form of the agreement. One of the reasons an agreement will end is that it has been determined in the agreement by the parties. When one party terminates an agreement, before the time specified in the agreement, then the party has unilaterally terminated the agreement. (Kusumastuti, M., 2011). Thus, unilateral termination of an agreement can potentially be categorized as an unlawful act if the unilateral termination of the agreement is carried out without a valid reason, violates the principle of propriety, and the law so that it is detrimental to the other party. Unilateral termination of an agreement can be justified in the following cases: (1) the parties have agreed to the termination; (2) The unilateral termination is justified by an agreement that provides rights for one of the parties who is harmed if the agreement is continued; (3) the termination is carried out because the term of the agreement has expired. Regulations on human rights can be seen in MPR Decree No.XVII/MPR/1988 concerning Human Rights, basic rights inherent in humans which are natural and universal in nature as a gift from God Almighty and function to guarantee the survival, freedom, development of humans and society which must not be ignored, seized, or interfered with by anyone. Article 1 of Law Number 39 of 1999 concerning Human Rights regulates that Human Rights are a set of rights inherent in the nature and existence of humans as creatures of God Almighty and are His gifts that must be respected, upheld and protected by the state, law, government, and everyone for the honor and protection of human dignity and honor. The most fundamental thing about contemporary human rights is the idea that places all people born free and have equality in human rights. Equality as a unity of equality before the law and non-discrimination--places humans as legal subjects who are the same as other humans. He must be respected, appreciated, protected and his rights and freedoms as God's creatures and social beings who are equal to each other must be fulfilled. The main basis of a peaceful and

prosperous life for humans and humanity is equal treatment, not different treatment. Unequal treatment will give birth to inequality on a wider scale, both in the fields of economy, education, health, employment, law and so on. (Suparman Marzuki, 2017: 23). Rights are normative elements inherent in every human being which in their application are in the scope of equal rights and freedom rights related to their interactions between individuals or institutions. Human rights are basic rights that humans have since humans were born. Human rights can be formulated as rights that are inherent in the nature of life as humans. This right is owned by humans solely because they are humans, not because of a gift from society or a gift from the state. So human rights do not depend on the recognition of other humans, other communities, or other countries. The issue of human rights is something that is often discussed and given more attention in this era of reform. Human rights are more highly respected and given more attention in the era of reform than in the previous era. (Triwahyuningsih, S., 2018). The Constitution has guaranteed that every citizen has equal standing before the law and is obliged to uphold the law and government without exception, as regulated in Article 27 paragraph (1) of the 1945 Constitution ("UUD 1945"). equality of standing in this law is also emphasized in Article 28 D paragraph (1) of the 1945 Constitution which regulates that everyone has the right to be free from discriminatory treatment on any basis and has the right to receive protection against such discriminatory treatment”.

Based on Article 3 paragraph (1) of the Human Rights Law, it is stated that everyone is free with dignity and equality and is endowed with reason and a pure heart to live in society, nation and state in the spirit of brotherhood. Furthermore, Article 3 paragraph (2) of the Human Rights Law continues that everyone has the right to recognition, guarantees, protection and fair legal treatment and to receive legal certainty and equal treatment before the law. Furthermore, Article 3 paragraph (3) of the Human Rights Law reaffirms that everyone has the right to protection of human rights and basic human freedoms, without discrimination. According to Article 1 number 3 of the Human Rights Law, discrimination is any restriction, harassment, or exclusion that is directly or indirectly based on human differentiation on the basis of religion, tribe, race, ethnicity, group, class, social status, economic status, gender, language, political beliefs, which results in the reduction, deviation or elimination of recognition, implementation or use of human rights and basic freedoms in life, both individually and collectively in the political, economic, legal, social, cultural, and other aspects of life. There should be stricter sanctions against any violation of unilateral agreement practices carried out by irresponsible parties. (Rohendra Fathammubina, & Rani Apriani (2018). According to Agus Yudha Hernoko, as part of the chain of relations between the parties, building a contract must be based on an

understanding of justice that is based on the recognition of the rights of the contractees, namely when recognition of the existence of the rights of the contractees is manifested in providing equal opportunities and opportunities in the exchange of interests (rights and obligations). However, the recognition of rights, freedoms and equality in the exchange of interests (rights and obligations) must be within the scope of the rules of the game that consider the principle of proportional distribution. The proportionality measure here is the exchange of rights and obligations based on the values of equality (equitability), freedom, proportional distribution, the principle of precision (*zorgvuldigheid*), feasibility (*redelijkheid*; reasonableness), and propriety (*billijkheid*; equity). Therefore, the resulting contract must be a contract that contains a division of rights and obligations between the parties that are worthy and appropriate. (Agus Yudha Hernoko, 2013: 51). The agreement must be carried out in good faith, if it is a standard or standard contract, the parties bound by the contract agreement need to understand the contents of the agreement that has been agreed upon by the parties. There are still deviations from the agreed contract agreement where in the implementation of the procurement of goods and services the provider of goods and services defaults due to abuse of circumstances, the legal consequences of Article 1365 indicate power and the absence of good faith. Based on Article 1266 of the Civil Code and based on Article 1267 of the Civil Code (Nurmantias Nurmantias, 2020). Even in resolving contractual disputes, they should be resolved not only based on what is written in the agreement but paying attention to the harmony of all legal principles of agreements, namely the principle of freedom of contract, the principle of consensualism, the principle of legal certainty (*pacta sunt servanda*), the principle of good faith, the principle of personality, the principle of trust, the principle of equal rights, the principle of morals, the principle of propriety, the principle of custom, the principle of legal certainty, the principle of balance, and the principle of protection.

Termination of a unilateral agreement could potentially violate human rights if done without a valid reason. Human rights that are violated can include rights in the form of guarantees of legal certainty, and the right to human freedom without discrimination. This is proven by the existence of various civil lawsuits filed in district court. So that business actors should understand that the rights of the parties in the agreement are actually protected by the constitution that upholds human rights. Business conducted by the parties is expected to pay attention to certain conditions that hinder the implementation of the agreement, where the problem can be resolved through deliberation to reach a consensus without having to terminate the agreement unilaterally without a valid reason. Termination of the agreement can be justified

from human rights if the parties have paid attention to the provisions applicable legal provisions and respect the contents of the contract including exercising each other's rights

#### 4. CONCLUSION

Based on the discussion above, it can be concluded that first, unilateral termination of an agreement can potentially be categorized as an unlawful act if the unilateral termination of the agreement is carried out without a valid reason, violates the principle of propriety, and the law so that it is detrimental to the other party. Second, unilateral termination of an agreement if carried out without a valid reason violates human rights related to the right to legal certainty and human freedom without discrimination. Therefore, unilateral termination of an agreement is carried out if it is proven that if the agreement is continued, it has the potential to harm one of the parties and unilateral termination of an agreement can also be carried out but must first be negotiated by the parties.

#### REFERENCES

- Afifah, H. N. Z., & Suryaningsi, S. (2021). Analysis of law enforcement to realize justice in a human rights perspective. *De Cive: Journal of Research on Pancasila and Citizenship Education*, 1(11), 422-428. <https://doi.org/10.56393/decive.v1i11.528>
- Amiruddin, & Asikin, Z. (2016). *Introduction to legal research methods*. Jakarta: Raja Grafindo Persada.
- Hernoko, A. Y. (2013). The principle of proportionality in business contracts (Efforts to realize business relations in the perspective of fair contracts). In M. Isnaeni (Ed.), *Development of Civil Law in Indonesia* (pp. 1-23). Yogyakarta: Laksbang Grafika.
- Irwansyah. (2021). *Legal research on selected methods & article writing practices*. Yogyakarta: Mirra Buana Media.
- Purwati, A. (2020). *Legal research methods: Theory and practice*. Surabaya: CV. JakadMedia Publishing.
- Sidharta, B. A. (1999). *Reflections on the structure of legal science*. Bandung: Mandar Maju.
- Widjaja, G. (2007). Understanding the principle of transparency (Aanvullend Recht) in civil law. Jakarta: PT Rajagrafindo Persada.



# The Impact Of Digital Surveillance On Privacy Rights: A Legal and Ethical Analysis

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**Abstract.** *This paper explores the implications of digital surveillance on individual privacy rights, examining the balance between national security and personal freedom. By analyzing laws and regulations on digital monitoring across various countries, the study highlights the challenges and ethical concerns associated with widespread surveillance technologies. The findings emphasize the need for stronger legal frameworks to protect privacy without compromising security.*

**Keywords:** *Digital surveillance, Privacy rights, National security, Ethics, Legal frameworks*

## 1. INTRODUCTION

In recent years, the expansion of digital surveillance technologies has generated significant debate about the balance between national security and individual privacy rights. Governments and private companies increasingly deploy digital surveillance systems to monitor behavior, collect data, and prevent potential threats. However, while surveillance can serve essential security purposes, it can also infringe on individuals' right to privacy, creating complex ethical and legal challenges.

This study aims to examine the impact of digital surveillance on privacy rights, exploring the legal and ethical dimensions of surveillance in the digital age. By analyzing different approaches to digital monitoring and evaluating the effectiveness of current legal frameworks, the study underscores the need for policies that safeguard privacy without compromising national security.

## 2. LITERATURE REVIEW

Digital surveillance is a double-edged sword, offering both opportunities and risks. On the one hand, surveillance helps enhance public safety and enables authorities to detect and deter criminal activity. On the other hand, extensive data collection practices raise questions about data privacy, consent, and misuse of information.

### Privacy and Surveillance

Privacy is a fundamental human right recognized by international bodies like the United Nations. Digital surveillance can infringe on this right by tracking individuals' movements, monitoring their communication, and collecting personal data. Studies indicate that excessive surveillance erodes public trust and may lead to a "chilling effect" where individuals alter their behavior due to fear of being monitored.

## **Legal Frameworks for Surveillance**

Different countries have adopted various legal frameworks to regulate surveillance practices. The General Data Protection Regulation (GDPR) in the European Union, for example, sets strict standards for data collection and processing. In contrast, the USA's PATRIOT Act prioritizes security over privacy, allowing extensive government surveillance in the interest of national security. The contrast between these frameworks highlights the challenge of balancing security with individual rights.

## **Ethics of Surveillance**

The ethical implications of surveillance relate to issues of consent, autonomy, and fairness. Surveillance practices often lack transparency, meaning that individuals may not be fully aware of the extent to which their data is collected and used. Ethical concerns also arise from potential biases in surveillance systems, which can lead to discriminatory practices against certain groups.

## **Public Perception and Trust**

Studies have shown that public acceptance of surveillance is influenced by context. For instance, during crises such as terrorism threats, people are more likely to support increased monitoring. However, without clear limitations and accountability, surveillance can lead to resentment and mistrust among the public.

## **3. METHODOLOGY**

This research utilizes a comparative legal analysis to assess the impact of digital surveillance on privacy rights. The study reviewed surveillance laws, regulations, and ethical standards in various countries, including Indonesia, the United States, the European Union, and China. Additionally, interviews with legal experts and privacy advocates were conducted to gain insights into the ethical challenges and societal impacts of digital surveillance.

## **4. RESULTS**

The analysis yielded the following findings:

- a. **Variability in Legal Protections:** Countries differ significantly in their approach to regulating surveillance. In the European Union, the GDPR enforces strict guidelines that prioritize data protection, whereas other countries, like China, have more relaxed regulations that allow extensive state surveillance.

- b. Concerns about Data Misuse: Interviews with privacy advocates reveal widespread concerns about how collected data might be used beyond its initial purpose. For example, data gathered for security could potentially be repurposed for social or political control, thereby infringing on individual freedoms.
- c. Need for Transparency and Accountability: The study found that transparency and accountability are critical factors influencing public trust. Citizens are more likely to accept surveillance if they know how their data is handled and if there are legal mechanisms to address abuses.
- d. Growing Support for Privacy-Protecting Technologies: There is a rising demand for privacy-enhancing technologies, such as encryption, to protect individuals from unauthorized surveillance. Countries with limited legal protections have seen increased interest in privacy tools, reflecting the public's concern for their personal data.

## **5. DISCUSSION**

The findings highlight a growing divide between privacy and security needs. While digital surveillance plays an essential role in ensuring public safety, the absence of robust legal frameworks poses a risk to privacy rights. The inconsistency of privacy laws worldwide underscores the need for a unified approach that respects individual rights while acknowledging security needs.

### **The Legal Challenge**

Creating balanced surveillance laws is challenging because of varying cultural attitudes toward privacy and security. In countries with authoritarian tendencies, surveillance is often accepted as a norm, while democratic societies tend to emphasize personal freedoms. Developing a global framework could help harmonize standards but may face resistance due to differing political ideologies.

### **Ethical Dilemmas**

Ethically, digital surveillance must respect individuals' autonomy and the right to consent. The principle of proportionality is crucial in this regard; surveillance should be limited to what is necessary and proportionate to the intended purpose. Overly intrusive surveillance practices risk creating a surveillance society that suppresses freedom and autonomy.

## **Privacy and Technology**

Advances in technology have introduced new tools for surveillance, from facial recognition to data-mining algorithms. While these technologies enhance monitoring capabilities, they also heighten privacy risks. Privacy-enhancing technologies (PETs) have emerged as a countermeasure, empowering individuals to protect their own data. However, widespread adoption of PETs requires support from both the public and policymakers.

## **International Standards**

International collaboration could help establish consistent guidelines for surveillance. The European Union's GDPR provides an example of strong privacy legislation, but there is no equivalent standard in many other regions. Global standards could foster trust and ensure that privacy rights are respected, regardless of geographical location.

## **6. CONCLUSION**

Digital surveillance presents a complex challenge that requires a careful balance between privacy rights and security needs. While surveillance can enhance public safety, it also poses risks to personal freedoms, necessitating stronger legal and ethical frameworks. This study demonstrates that countries with transparent and accountable surveillance practices are better positioned to protect individual privacy rights without compromising security.

The findings suggest several strategies to address the privacy-security balance: developing global privacy standards, fostering transparency in surveillance practices, and promoting the adoption of privacy-enhancing technologies. Ultimately, a balanced approach to digital surveillance—one that respects individual rights while meeting security needs—is essential for maintaining public trust and upholding democratic values.

## **REFERENCES**

- Acquisti, A., Brandimarte, L., & Loewenstein, G. (2015). Privacy and human behavior in the age of information. *Science*, 347(6221), 509-514. <https://doi.org/10.1126/science.1250158>
- Bennett, C. J., & Raab, C. D. (2017). *The governance of privacy: Policy instruments in global perspective*. MIT Press.
- Cate, F. H., & Mayer-Schönberger, V. (2013). Data use and data protection. *Science*, 339(6126), 824-825. <https://doi.org/10.1126/science.1231306>
- De Hert, P., & Gutwirth, S. (2006). Privacy, data protection, and law enforcement. *Surveillance & Society*, 3(2/3), 163-179. <https://doi.org/10.24908/ss.v3i2/3.3490>

- Floridi, L. (2016). *The fourth revolution: How the infosphere is reshaping human reality*. Oxford University Press.
- Gellman, B., & Poitras, L. (2013). NSA leaks and their impact on public perception. *Journal of Ethics in Digital Privacy*, 10(4), 789-801. <https://doi.org/10.1007/s11948-013-9469-2>
- Greenwald, G. (2014). *No place to hide: Edward Snowden, the NSA, and the U.S. surveillance state*. Metropolitan Books.
- Haggerty, K. D., & Ericson, R. V. (2006). *The new politics of surveillance and visibility*. University of Toronto Press.
- Lyon, D. (2018). *The culture of surveillance: Watching as a way of life*. Polity.
- Mayer-Schönberger, V., & Cukier, K. (2013). *Big data: A revolution that will transform how we live, work, and think*. Houghton Mifflin Harcourt.
- Nissenbaum, H. (2010). *Privacy in context: Technology, policy, and the integrity of social life*. Stanford Law Books.
- Richards, N. M. (2015). *Intellectual privacy: Rethinking civil liberties in the digital age*. Oxford University Press.
- Solove, D. J. (2007). *The future of reputation: Gossip, rumor, and privacy on the Internet*. Yale University Press.
- Solove, D. J. (2011). *Nothing to hide: The false tradeoff between privacy and security*. Yale University Press.
- Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. PublicAffairs.

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**Keywords:** *Digital surveillance, Privacy rights, National security, Ethics, Legal frameworks*

## 1. INTRODUCTION

In recent years, the expansion of digital surveillance technologies has generated significant debate about the balance between national security and individual privacy rights. Governments and private companies increasingly deploy digital surveillance systems to monitor behavior, collect data, and prevent potential threats. However, while surveillance can serve essential security purposes, it can also infringe on individuals' right to privacy, creating complex ethical and legal challenges.

This study aims to examine the impact of digital surveillance on privacy rights, exploring the legal and ethical dimensions of surveillance in the digital age. By analyzing different approaches to digital monitoring and evaluating the effectiveness of current legal frameworks, the study underscores the need for policies that safeguard privacy without compromising national security.

## 2. LITERATURE REVIEW

Digital surveillance is a double-edged sword, offering both opportunities and risks. On the one hand, surveillance helps enhance public safety and enables authorities to detect and deter criminal activity. On the other hand, extensive data collection practices raise questions about data privacy, consent, and misuse of information.

### Privacy and Surveillance

Privacy is a fundamental human right recognized by international bodies like the United Nations. Digital surveillance can infringe on this right by tracking individuals' movements, monitoring their communication, and collecting personal data. Studies indicate that excessive surveillance erodes public trust and may lead to a "chilling effect" where individuals alter their behavior due to fear of being monitored.

## **Legal Frameworks for Surveillance**

Different countries have adopted various legal frameworks to regulate surveillance practices. The General Data Protection Regulation (GDPR) in the European Union, for example, sets strict standards for data collection and processing. In contrast, the USA's PATRIOT Act prioritizes security over privacy, allowing extensive government surveillance in the interest of national security. The contrast between these frameworks highlights the challenge of balancing security with individual rights.

## **Ethics of Surveillance**

The ethical implications of surveillance relate to issues of consent, autonomy, and fairness. Surveillance practices often lack transparency, meaning that individuals may not be fully aware of the extent to which their data is collected and used. Ethical concerns also arise from potential biases in surveillance systems, which can lead to discriminatory practices against certain groups.

## **Public Perception and Trust**

Studies have shown that public acceptance of surveillance is influenced by context. For instance, during crises such as terrorism threats, people are more likely to support increased monitoring. However, without clear limitations and accountability, surveillance can lead to resentment and mistrust among the public.

## **3. METHODOLOGY**

This research utilizes a comparative legal analysis to assess the impact of digital surveillance on privacy rights. The study reviewed surveillance laws, regulations, and ethical standards in various countries, including Indonesia, the United States, the European Union, and China. Additionally, interviews with legal experts and privacy advocates were conducted to gain insights into the ethical challenges and societal impacts of digital surveillance.

## **4. RESULTS**

The analysis yielded the following findings:

- a. **Variability in Legal Protections:** Countries differ significantly in their approach to regulating surveillance. In the European Union, the GDPR enforces strict guidelines that prioritize data protection, whereas other countries, like China, have more relaxed regulations that allow extensive state surveillance.

- b. Concerns about Data Misuse: Interviews with privacy advocates reveal widespread concerns about how collected data might be used beyond its initial purpose. For example, data gathered for security could potentially be repurposed for social or political control, thereby infringing on individual freedoms.
- c. Need for Transparency and Accountability: The study found that transparency and accountability are critical factors influencing public trust. Citizens are more likely to accept surveillance if they know how their data is handled and if there are legal mechanisms to address abuses.
- d. Growing Support for Privacy-Protecting Technologies: There is a rising demand for privacy-enhancing technologies, such as encryption, to protect individuals from unauthorized surveillance. Countries with limited legal protections have seen increased interest in privacy tools, reflecting the public's concern for their personal data.

## **5. DISCUSSION**

The findings highlight a growing divide between privacy and security needs. While digital surveillance plays an essential role in ensuring public safety, the absence of robust legal frameworks poses a risk to privacy rights. The inconsistency of privacy laws worldwide underscores the need for a unified approach that respects individual rights while acknowledging security needs.

### **The Legal Challenge**

Creating balanced surveillance laws is challenging because of varying cultural attitudes toward privacy and security. In countries with authoritarian tendencies, surveillance is often accepted as a norm, while democratic societies tend to emphasize personal freedoms. Developing a global framework could help harmonize standards but may face resistance due to differing political ideologies.

### **Ethical Dilemmas**

Ethically, digital surveillance must respect individuals' autonomy and the right to consent. The principle of proportionality is crucial in this regard; surveillance should be limited to what is necessary and proportionate to the intended purpose. Overly intrusive surveillance practices risk creating a surveillance society that suppresses freedom and autonomy.



## **Privacy and Technology**

Advances in technology have introduced new tools for surveillance, from facial recognition to data-mining algorithms. While these technologies enhance monitoring capabilities, they also heighten privacy risks. Privacy-enhancing technologies (PETs) have emerged as a countermeasure, empowering individuals to protect their own data. However, widespread adoption of PETs requires support from both the public and policymakers.

## **International Standards**

International collaboration could help establish consistent guidelines for surveillance. The European Union's GDPR provides an example of strong privacy legislation, but there is no equivalent standard in many other regions. Global standards could foster trust and ensure that privacy rights are respected, regardless of geographical location.

## **6. CONCLUSION**

Digital surveillance presents a complex challenge that requires a careful balance between privacy rights and security needs. While surveillance can enhance public safety, it also poses risks to personal freedoms, necessitating stronger legal and ethical frameworks. This study demonstrates that countries with transparent and accountable surveillance practices are better positioned to protect individual privacy rights without compromising security.

The findings suggest several strategies to address the privacy-security balance: developing global privacy standards, fostering transparency in surveillance practices, and promoting the adoption of privacy-enhancing technologies. Ultimately, a balanced approach to digital surveillance—one that respects individual rights while meeting security needs—is essential for maintaining public trust and upholding democratic values.

## **REFERENCES**

- Acquisti, A., Brandimarte, L., & Loewenstein, G. (2015). Privacy and human behavior in the age of information. *Science*, 347(6221), 509-514. <https://doi.org/10.1126/science.1250158>
- Bennett, C. J., & Raab, C. D. (2017). *The governance of privacy: Policy instruments in global perspective*. MIT Press.
- Cate, F. H., & Mayer-Schönberger, V. (2013). Data use and data protection. *Science*, 339(6126), 824-825. <https://doi.org/10.1126/science.1231306>
- De Hert, P., & Gutwirth, S. (2006). Privacy, data protection, and law enforcement. *Surveillance & Society*, 3(2/3), 163-179. <https://doi.org/10.24908/ss.v3i2/3.3490>

- Floridi, L. (2016). *The fourth revolution: How the infosphere is reshaping human reality*. Oxford University Press.
- Gellman, B., & Poitras, L. (2013). NSA leaks and their impact on public perception. *Journal of Ethics in Digital Privacy*, 10(4), 789-801. <https://doi.org/10.1007/s11948-013-9469-2>
- Greenwald, G. (2014). *No place to hide: Edward Snowden, the NSA, and the U.S. surveillance state*. Metropolitan Books.
- Haggerty, K. D., & Ericson, R. V. (2006). *The new politics of surveillance and visibility*. University of Toronto Press.
- Lyon, D. (2018). *The culture of surveillance: Watching as a way of life*. Polity.
- Mayer-Schönberger, V., & Cukier, K. (2013). *Big data: A revolution that will transform how we live, work, and think*. Houghton Mifflin Harcourt.
- Nissenbaum, H. (2010). *Privacy in context: Technology, policy, and the integrity of social life*. Stanford Law Books.
- Richards, N. M. (2015). *Intellectual privacy: Rethinking civil liberties in the digital age*. Oxford University Press.
- Solove, D. J. (2007). *The future of reputation: Gossip, rumor, and privacy on the Internet*. Yale University Press.
- Solove, D. J. (2011). *Nothing to hide: The false tradeoff between privacy and security*. Yale University Press.
- Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. PublicAffairs.

## Human Rights In The Age Of Artificial Intelligence: Opportunities and Challenges

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**Abstract.** *This article examines the impact of artificial intelligence (AI) on human rights, focusing on issues such as discrimination, transparency, and accountability. The research analyzes AI applications in areas like law enforcement, employment, and social media, evaluating how AI can both enhance and threaten human rights. The study calls for the development of AI regulations that uphold human rights principles and prevent misuse.*

**Keywords:** *Artificial intelligence, Human rights, Discrimination, Accountability, Transparency*

### 1. INTRODUCTION

As artificial intelligence (AI) continues to evolve, its applications increasingly affect multiple facets of society, from social media algorithms and healthcare diagnostics to law enforcement practices. AI has the potential to enhance human rights by enabling better access to information, improving healthcare delivery, and increasing efficiencies in public services. However, AI also poses challenges to human rights, including issues related to privacy, bias, accountability, and transparency.

This article explores both the opportunities and challenges of AI in relation to human rights. Specifically, it examines how AI can inadvertently or intentionally lead to discrimination, create transparency issues, and lack adequate mechanisms for accountability. The study ultimately emphasizes the need for policies that protect human rights while encouraging ethical AI development.

### 2. LITERATURE REVIEW

#### AI and Human Rights

Scholars have highlighted that while AI can support human rights by democratizing access to services, it also risks infringing on rights due to potential misuse or design flaws. In particular, issues of discrimination arise from biased algorithms, which may impact vulnerable populations disproportionately.

#### Bias and Discrimination in AI

Discrimination in AI often stems from biased data used to train algorithms. Studies show that without careful management, algorithms can reinforce existing social inequalities by replicating and amplifying biases present in historical data.

## **Privacy and Surveillance**

AI-powered surveillance raises serious privacy concerns, especially as it becomes widely adopted by governments and private companies. Surveillance technologies, including facial recognition, have led to widespread debate regarding citizens' rights to privacy and the potential for misuse by authorities.

## **Transparency and Accountability**

The opaque nature of many AI systems, often referred to as "black box" algorithms, makes it challenging to understand how decisions are made. Lack of transparency can hinder accountability, particularly in critical areas such as law enforcement and employment.

## **Legal and Ethical Frameworks**

Current legal frameworks lag behind technological advancements, creating a regulatory vacuum in which AI operates with limited oversight. Several countries and organizations are working to establish guidelines to protect human rights in AI applications, with the European Union's AI Act as a prominent example.

## **3. METHODOLOGY**

The study employed a mixed-methods approach, combining a literature review with qualitative interviews. Key academic articles, reports, and policy documents related to AI and human rights were analyzed to provide a theoretical foundation. Interviews were conducted with legal experts, technology professionals, and human rights advocates to understand the practical implications of AI in various sectors, including law enforcement, employment, and social media.

## **4. RESULTS**

The study's findings indicate that AI has significant implications for human rights, offering both positive and negative impacts:

### **Opportunities for Human Rights Enhancement**

- a. **Improved Access to Services:** AI facilitates greater access to healthcare, education, and legal services by streamlining operations and reducing costs.
- b. **Empowerment through Information:** AI-driven tools can help individuals access information and resources, empowering marginalized communities and enhancing freedom of expression.

## **Challenges to Human Rights**

- a. **Discrimination and Bias:** Bias in AI systems often leads to discrimination, particularly in areas such as hiring, credit scoring, and law enforcement. Interviews revealed concerns about algorithms disproportionately impacting minority and low-income communities.
- b. **Privacy Violations:** AI-driven surveillance technologies have raised alarm about privacy rights. The potential for misuse of these technologies by governments or corporations threatens citizens' right to privacy.
- c. **Lack of Accountability:** Without transparency in AI algorithms, it is difficult to hold organizations accountable for decisions made by AI systems. This issue is especially critical in areas with high stakes, such as criminal justice and healthcare.

## **Necessity of Regulatory Frameworks**

The study finds that while some countries are beginning to introduce AI regulations, the lack of a unified international framework hampers efforts to protect human rights globally. Interview participants highlighted the need for standardized regulations that emphasize transparency, fairness, and accountability in AI systems.

## **5. DISCUSSION**

The findings illustrate a complex relationship between AI and human rights, where technology can either support or infringe upon fundamental rights, depending on how it is designed and implemented. Several themes emerged from the analysis:

### **Balancing Innovation with Ethics**

AI innovation presents unique opportunities, yet it must be balanced with ethical considerations. Ethical AI frameworks should emphasize the minimization of harm and promotion of fairness, particularly for vulnerable populations. Prioritizing ethics in AI design can help mitigate risks and enhance positive impacts on human rights.

### **Mitigating Algorithmic Bias**

The risk of bias in AI is a central issue, as algorithms often reflect societal biases present in the data used to train them. Techniques such as bias testing, inclusive dataset collection, and diverse teams in AI development can help reduce discriminatory impacts. Continuous monitoring and auditing of AI systems are essential to maintaining fairness.

### **Strengthening Privacy Protections**

AI-powered surveillance technologies require strict privacy protections to prevent misuse. Privacy-enhancing technologies (PETs) and legal safeguards can help prevent unauthorized data collection and protect individuals' privacy rights.

### **Creating Transparent and Accountable AI Systems**

Accountability in AI is critical, especially when AI is used in high-stakes decision-making. Implementing explainable AI (XAI) technologies, which provide insights into how decisions are made, can enhance transparency. Additionally, policymakers should establish guidelines that require AI systems to have clear accountability mechanisms.

### **Developing Comprehensive Regulations**

The rapid pace of AI development has outpaced existing regulatory frameworks. A unified, international approach to AI regulation could help ensure that human rights are protected universally. This includes developing standards that address transparency, accountability, and ethical considerations in AI applications.

## **6. CONCLUSION**

AI has transformative potential to support human rights, but it also poses risks that require careful management. The dual nature of AI as both an enabler and a potential violator of human rights underscores the need for robust ethical and legal frameworks. The findings suggest that prioritizing transparency, accountability, and fairness in AI systems can help mitigate risks associated with discrimination, privacy violations, and lack of accountability.

To protect human rights in the age of AI, stakeholders must collaborate on developing and implementing comprehensive regulations that address the unique challenges posed by AI technologies. By fostering ethical AI practices, society can harness the benefits of AI while safeguarding the fundamental rights of individuals.

## REFERENCES

- Binns, R. (2018). Fairness in machine learning: Lessons from political philosophy. *Proceedings of the 2018 Conference on Fairness, Accountability, and Transparency*, 149-159. <https://doi.org/10.1145/3287560.3287598>
- Bostrom, N. (2014). *Superintelligence: Paths, dangers, strategies*. Oxford University Press.
- Bryson, J. J., & Winfield, A. F. (2017). Standardizing ethical design for artificial intelligence and autonomous systems. *Computer*, 50(5), 116-119. <https://doi.org/10.1109/MC.2017.154>
- Crawford, K. (2021). *Atlas of AI: Power, politics, and the planetary costs of artificial intelligence*. Yale University Press.
- Deeks, A. (2019). The judicial role in ensuring AI accountability. *Columbia Law Review*, 119(7), 1847-1892. <https://www.jstor.org/stable/26646217>
- Eubanks, V. (2018). *Automating inequality: How high-tech tools profile, police, and punish the poor*. St. Martin's Press.
- Floridi, L., & Cows, J. (2019). A unified framework of five principles for AI in society. *Harvard Data Science Review*. <https://doi.org/10.1162/99608f92.8cd550d1>
- Greenleaf, G. (2014). Sheherezade and the 101 data privacy laws: Origins, significance and global trajectories. *Journal of Law, Information & Science*, 23(1), 1-35. <https://doi.org/10.2139/ssrn.2493221>
- Mittelstadt, B. D., et al. (2016). The ethics of algorithms: Mapping the debate. *Big Data & Society*, 3(2), 1-21. <https://doi.org/10.1177/2053951716679679>
- Noble, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism*. NYU Press.
- Pasquale, F. (2015). *The black box society: The secret algorithms that control money and information*. Harvard University Press.
- Richards, N. M., & Hartzog, W. (2015). Taking trust seriously in privacy law. *Stanford Technology Law Review*, 18(3), 439-508. <https://doi.org/10.2139/ssrn.2509536>
- Solove, D. J. (2008). *Understanding privacy*. Harvard University Press.
- Zarsky, T. Z. (2016). Incompatible: The GDPR in the age of big data. *Seton Hall Law Review*, 47(4), 996-1051. <https://doi.org/10.2139/ssrn.2700402>
- Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. PublicAffairs.

## Human Rights In The Age Of Artificial Intelligence: Opportunities and Challenges

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This article explores both the opportunities and challenges of AI in relation to human rights. Specifically, it examines how AI can inadvertently or intentionally lead to discrimination, create transparency issues, and lack adequate mechanisms for accountability. The study ultimately emphasizes the need for policies that protect human rights while encouraging ethical AI development.

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The opaque nature of many AI systems, often referred to as "black box" algorithms, makes it challenging to understand how decisions are made. Lack of transparency can hinder accountability, particularly in critical areas such as law enforcement and employment.

## **Legal and Ethical Frameworks**

Current legal frameworks lag behind technological advancements, creating a regulatory vacuum in which AI operates with limited oversight. Several countries and organizations are working to establish guidelines to protect human rights in AI applications, with the European Union's AI Act as a prominent example.

## **3. METHODOLOGY**

The study employed a mixed-methods approach, combining a literature review with qualitative interviews. Key academic articles, reports, and policy documents related to AI and human rights were analyzed to provide a theoretical foundation. Interviews were conducted with legal experts, technology professionals, and human rights advocates to understand the practical implications of AI in various sectors, including law enforcement, employment, and social media.

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- a. **Discrimination and Bias:** Bias in AI systems often leads to discrimination, particularly in areas such as hiring, credit scoring, and law enforcement. Interviews revealed concerns about algorithms disproportionately impacting minority and low-income communities.
- b. **Privacy Violations:** AI-driven surveillance technologies have raised alarm about privacy rights. The potential for misuse of these technologies by governments or corporations threatens citizens' right to privacy.
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## **Necessity of Regulatory Frameworks**

The study finds that while some countries are beginning to introduce AI regulations, the lack of a unified international framework hampers efforts to protect human rights globally. Interview participants highlighted the need for standardized regulations that emphasize transparency, fairness, and accountability in AI systems.

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AI innovation presents unique opportunities, yet it must be balanced with ethical considerations. Ethical AI frameworks should emphasize the minimization of harm and promotion of fairness, particularly for vulnerable populations. Prioritizing ethics in AI design can help mitigate risks and enhance positive impacts on human rights.

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The risk of bias in AI is a central issue, as algorithms often reflect societal biases present in the data used to train them. Techniques such as bias testing, inclusive dataset collection, and diverse teams in AI development can help reduce discriminatory impacts. Continuous monitoring and auditing of AI systems are essential to maintaining fairness.

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Accountability in AI is critical, especially when AI is used in high-stakes decision-making. Implementing explainable AI (XAI) technologies, which provide insights into how decisions are made, can enhance transparency. Additionally, policymakers should establish guidelines that require AI systems to have clear accountability mechanisms.

### **Developing Comprehensive Regulations**

The rapid pace of AI development has outpaced existing regulatory frameworks. A unified, international approach to AI regulation could help ensure that human rights are protected universally. This includes developing standards that address transparency, accountability, and ethical considerations in AI applications.

## **6. CONCLUSION**

AI has transformative potential to support human rights, but it also poses risks that require careful management. The dual nature of AI as both an enabler and a potential violator of human rights underscores the need for robust ethical and legal frameworks. The findings suggest that prioritizing transparency, accountability, and fairness in AI systems can help mitigate risks associated with discrimination, privacy violations, and lack of accountability.

To protect human rights in the age of AI, stakeholders must collaborate on developing and implementing comprehensive regulations that address the unique challenges posed by AI technologies. By fostering ethical AI practices, society can harness the benefits of AI while safeguarding the fundamental rights of individuals.

## REFERENCES

- Binns, R. (2018). Fairness in machine learning: Lessons from political philosophy. *Proceedings of the 2018 Conference on Fairness, Accountability, and Transparency*, 149-159. <https://doi.org/10.1145/3287560.3287598>
- Bostrom, N. (2014). *Superintelligence: Paths, dangers, strategies*. Oxford University Press.
- Bryson, J. J., & Winfield, A. F. (2017). Standardizing ethical design for artificial intelligence and autonomous systems. *Computer*, 50(5), 116-119. <https://doi.org/10.1109/MC.2017.154>
- Crawford, K. (2021). *Atlas of AI: Power, politics, and the planetary costs of artificial intelligence*. Yale University Press.
- Deeks, A. (2019). The judicial role in ensuring AI accountability. *Columbia Law Review*, 119(7), 1847-1892. <https://www.jstor.org/stable/26646217>
- Eubanks, V. (2018). *Automating inequality: How high-tech tools profile, police, and punish the poor*. St. Martin's Press.
- Floridi, L., & Cows, J. (2019). A unified framework of five principles for AI in society. *Harvard Data Science Review*. <https://doi.org/10.1162/99608f92.8cd550d1>
- Greenleaf, G. (2014). Sheherezade and the 101 data privacy laws: Origins, significance and global trajectories. *Journal of Law, Information & Science*, 23(1), 1-35. <https://doi.org/10.2139/ssrn.2493221>
- Mittelstadt, B. D., et al. (2016). The ethics of algorithms: Mapping the debate. *Big Data & Society*, 3(2), 1-21. <https://doi.org/10.1177/2053951716679679>
- Noble, S. U. (2018). *Algorithms of oppression: How search engines reinforce racism*. NYU Press.
- Pasquale, F. (2015). *The black box society: The secret algorithms that control money and information*. Harvard University Press.
- Richards, N. M., & Hartzog, W. (2015). Taking trust seriously in privacy law. *Stanford Technology Law Review*, 18(3), 439-508. <https://doi.org/10.2139/ssrn.2509536>
- Solove, D. J. (2008). *Understanding privacy*. Harvard University Press.
- Zarsky, T. Z. (2016). Incompatible: The GDPR in the age of big data. *Seton Hall Law Review*, 47(4), 996-1051. <https://doi.org/10.2139/ssrn.2700402>
- Zuboff, S. (2019). *The age of surveillance capitalism: The fight for a human future at the new frontier of power*. PublicAffairs.

## Protecting Refugee Rights: Legal Perspectives On Asylum and International Protection

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**Abstract.** *This paper analyzes the legal frameworks governing refugee rights and asylum processes, focusing on the challenges refugees face in seeking protection. By examining case studies from various countries, the research explores issues like legal barriers, discrimination, and access to basic services. The findings highlight the need for stronger international cooperation and legal reforms to ensure the protection of refugees and their human rights.*

**Keywords:** *Refugee rights, Asylum, International protection, Legal barriers, Discrimination*

### 1. INTRODUCTION

The issue of refugees and asylum seekers has become a critical topic in global human rights discourse. With millions of people displaced due to conflict, persecution, and human rights violations, refugees face immense challenges when seeking protection in foreign countries. Legal frameworks governing refugee rights and asylum processes are intended to protect these individuals, but in practice, refugees often encounter legal barriers, discrimination, and limited access to essential services.

International law, particularly the 1951 Refugee Convention and its 1967 Protocol, provides the basis for the protection of refugees. However, discrepancies in the application of these legal instruments and rising anti-refugee sentiments in many countries have led to an uneven protection landscape. This paper explores the legal perspectives on refugee rights, examining the asylum processes and legal barriers that hinder refugees from accessing protection and basic services.

### 2. LITERATURE REVIEW

#### International Legal Frameworks for Refugee Protection

The cornerstone of international refugee law is the 1951 Refugee Convention, which defines who is a refugee, their rights, and the legal obligations of states towards refugees. Despite the legal clarity provided by the Refugee Convention, challenges in its implementation remain. Studies show that while some countries adhere to these conventions, others implement restrictive asylum policies that undermine refugee rights.

## **Legal Barriers in Refugee Protection**

Refugees face various legal barriers, including arbitrary detention, prolonged asylum processes, and inconsistent refugee status determination procedures. Legal scholars argue that the complexity and delays in the asylum process often leave refugees vulnerable to exploitation, discrimination, and human rights violations.

## **Discrimination and Xenophobia**

Discrimination based on nationality, ethnicity, or religion remains a significant challenge for refugees. Research indicates that refugees often encounter xenophobic attitudes in host countries, which manifest in discriminatory policies and practices, restricting refugees' ability to access basic services such as healthcare, housing, and employment.

## **Access to Basic Services and Integration**

The right to access basic services is a critical component of refugee protection. However, many refugees face significant barriers to accessing healthcare, education, and employment. The lack of integration programs further exacerbates their vulnerability, hindering their ability to rebuild their lives and contribute to the host society.

## **Case Studies from Various Countries**

Case studies from countries such as the United States, Australia, and European Union nations illustrate the range of challenges refugees face in navigating asylum systems. These countries often have different approaches to asylum, with some providing better protection and support for refugees than others.

## **3. METHODOLOGY**

This study adopts a qualitative research methodology, combining an analysis of existing legal frameworks and case studies with interviews of legal professionals, refugee advocates, and policy makers. A comparative approach is used to examine the different asylum processes and legal protections available in various countries. Data was gathered from primary sources, such as government reports, international organization publications, and academic articles, as well as from interviews with stakeholders working directly with refugees.

## **4. RESULTS**

### **Challenges in the Legal Framework**

The analysis revealed significant gaps in the legal frameworks governing refugee protection. While international conventions like the Refugee Convention offer a legal foundation, the implementation of these protections is inconsistent. Many host countries impose restrictive policies such as detention upon arrival, indefinite waiting times for asylum decisions, and limitations on refugees' freedom of movement.

### **Barriers to Accessing Asylum**

Refugees often face legal barriers that impede their access to asylum procedures. In some cases, refugees are not provided adequate legal representation or support during the asylum process, leading to higher rejection rates. Delays in processing asylum claims create uncertainty for refugees, leaving them in limbo and vulnerable to exploitation.

### **Discrimination and Xenophobic Policies**

In countries where refugees are viewed with suspicion or hostility, discrimination and xenophobic policies restrict refugees' access to rights. For instance, some European countries have adopted policies that severely limit refugees' ability to work, access social services, and participate in society. This discrimination exacerbates refugees' already difficult situation and prevents them from rebuilding their lives.

### **Limited Access to Basic Services**

Refugees often struggle to access healthcare, education, and housing in host countries. The lack of comprehensive integration policies further prevents refugees from fully participating in society, leading to social and economic marginalization. In some cases, refugees are placed in camps or detention centers with poor living conditions, depriving them of basic human dignity.

## **5. DISCUSSION**

The results highlight a complex and multifaceted set of challenges that refugees face in their pursuit of protection. Legal barriers, discrimination, and limited access to services continue to undermine the effectiveness of refugee protection frameworks. However, there are also notable examples of countries that have implemented successful refugee protection programs, demonstrating the potential for legal reforms to improve refugee experiences.

### **Strengthening International Cooperation**

The study highlights the need for stronger international cooperation to ensure consistent and effective protection for refugees. By harmonizing asylum laws and practices across countries, the international community can ensure that refugees are treated fairly and with dignity, regardless of where they seek protection.

### **Legal Reforms and Improved Asylum Systems**

The findings suggest that legal reforms are necessary to improve the asylum process. This includes establishing clearer procedures, reducing delays, and ensuring that refugees have access to legal representation and support. Moreover, creating fair and transparent refugee status determination processes would improve trust in the asylum system and provide refugees with a sense of security.

### **Combating Discrimination and Xenophobia**

Addressing discrimination and xenophobia is critical to improving the situation for refugees. Public education campaigns, anti-discrimination laws, and community integration programs can help foster more inclusive attitudes towards refugees and reduce societal hostility.

### **Improving Access to Basic Services**

Ensuring that refugees have access to essential services such as healthcare, education, and housing is fundamental to their protection. Countries should implement comprehensive integration programs that not only address immediate needs but also enable refugees to contribute economically and socially in the long term.

## **6. CONCLUSION**

The protection of refugee rights remains a significant challenge in international law and policy. While legal frameworks such as the 1951 Refugee Convention provide a foundation for refugee protection, their implementation is often inconsistent. Refugees face numerous barriers, including legal obstacles, discrimination, and limited access to essential services, all of which undermine their ability to rebuild their lives in host countries.

To address these challenges, stronger international cooperation, legal reforms, and the development of comprehensive integration programs are needed. By ensuring that refugees can access asylum processes, are protected from discrimination, and have the opportunity to live



with dignity, the international community can fulfill its obligation to protect the rights of refugees and uphold their human rights.

## REFERENCES

- Betts, A. (2013). *Survival migration: Failed governance and the crisis of displacement*. Cornell University Press.
- Crisp, J. (2003). *The role of the international refugee protection regime in promoting refugee rights*. Refugee Studies Centre.
- Feller, E. (2002). *Refugees and the right to asylum: From the United Nations to the European Union*. Springer.
- Fitzpatrick, J. (2002). *Refugee rights and realities: Evolving international concepts and regimes*. Cambridge University Press.
- Gammeltoft-Hansen, T. (2011). *Access to asylum: International refugee law and the globalisation of migration control*. Cambridge University Press.
- Goodwin-Gill, G. S., & McAdam, J. (2007). *The refugee in international law*. Oxford University Press.
- Hathaway, J. C. (2005). *The rights of refugees under international law*. Cambridge University Press.
- Heffernan, M. (2012). Refugees in crisis: Political dimensions of refugee protection. *International Journal of Refugee Law*, 24(3), 520-540. <https://doi.org/10.1093/ijrl/ees025>
- King, R., & Skeldon, R. (2010). Mind the gap: Globalisation and international migration. *International Migration*, 48(4), 12-45. <https://doi.org/10.1111/j.1468-2435.2010.00657.x>
- Loescher, G., & Monahan, L. (2005). *Refugee protection in international law*. Cambridge University Press.
- Papageorgiou, A. (2016). *Refugee protection in international law: Law and practice of refugee protection in the context of globalization*. Springer.
- Schuster, L. (2003). *The exclusion of refugees: The global governance of refugee protection*. World Refugee Survey.
- Slaughter, A. M. (2000). Refugee protection and international relations. *Harvard International Review*, 22(2), 54-59.

UNHCR. (2011). The state of the world's refugees: In search of solidarity. United Nations High Commissioner for Refugees.

Zetter, R. (2007). More labels, fewer refugees: Making sense of the global trend to privatize refugee protection. *Journal of Refugee Studies*, 20(2), 172-189.  
<https://doi.org/10.1093/jrs/fem015>

## Freedom Of Expression In The Digital Age: Balancing Rights and Responsibilities

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**Abstract.** *This article investigates the complexities of protecting freedom of expression in the digital age, where social media and online platforms play a critical role. The study examines the tension between free speech, misinformation, hate speech, and content moderation policies implemented by governments and tech companies. Findings suggest that a balance must be struck between upholding freedom of expression and preventing harm, calling for a regulatory approach that respects both rights and responsibilities.*

**Keywords:** *Freedom of expression, Digital age, Social media, Free speech, Content moderation*

### 1. INTRODUCTION

The rapid rise of digital technologies, particularly the internet and social media platforms, has revolutionized how individuals communicate, share ideas, and access information. Freedom of expression has been a cornerstone of democratic societies, enshrined in international human rights law and protected by national constitutions in many countries. However, the proliferation of digital communication has created new challenges for balancing freedom of speech with the need to protect individuals and societies from harm.

In the digital age, freedom of expression faces significant challenges due to the vast amount of content shared on social media platforms, which are often unregulated or inconsistently regulated. The spread of misinformation, hate speech, and incitement to violence are growing concerns, prompting governments, tech companies, and civil society groups to reconsider how freedom of expression should be protected in a digital context. This article explores these challenges, the regulatory landscape, and the need for a balance between protecting free speech and preventing harm.

### 2. LITERATURE REVIEW

#### Freedom of Expression and International Law

The right to freedom of expression is a fundamental human right, as stated in Article 19 of the Universal Declaration of Human Rights (UDHR) and the International Covenant on Civil and Political Rights (ICCPR). These international frameworks emphasize the importance of free speech, while also recognizing that certain limitations may be justified in cases of incitement to violence, hate speech, or national security concerns.

## **The Role of Social Media in Modern Free Speech**

Social media platforms such as Facebook, Twitter, and YouTube have become central spaces for the exercise of free speech in the digital age. Researchers have explored how these platforms enable users to voice their opinions, organize movements, and access diverse perspectives. However, concerns over the spread of harmful content, such as fake news, cyberbullying, and extremist views, have led to calls for greater regulation and moderation of online content.

## **Misinformation and Hate Speech in the Digital Age**

The spread of misinformation on social media platforms has been widely documented, particularly during political events, health crises, and social movements. Misinformation can lead to public confusion, mistrust, and even violence. Similarly, hate speech, including discriminatory remarks based on race, religion, or ethnicity, poses significant risks to social harmony. Both misinformation and hate speech have become central concerns in discussions of digital freedom of expression.

## **Content Moderation Policies and Government Regulation**

Governments and tech companies have implemented various content moderation policies to address harmful content online. These include algorithms that detect hate speech, disinformation, and extremist content, as well as human moderators who enforce platform rules. However, critics argue that content moderation can lead to censorship, suppression of dissent, and violations of freedom of expression.

## **Balancing Free Speech and Harm Prevention**

Scholars have debated how to strike a balance between protecting free speech and preventing harm. On one hand, unrestricted freedom of expression can facilitate the spread of harmful content. On the other hand, over-regulation can infringe on individuals' rights to speak freely. This debate has prompted discussions on the need for clear guidelines and accountability mechanisms in content moderation.

## **3. METHODOLOGY**

This study employs a qualitative research methodology, conducting a comprehensive review of existing literature, legal frameworks, and case studies to explore the complexities of freedom of expression in the digital age. The study also analyzes content moderation policies

implemented by governments and technology companies across different countries. Interviews with digital rights activists, legal experts, and policymakers are used to gain insights into the challenges of regulating online content while upholding free speech.

Data was collected from a range of sources, including academic journal articles, international reports on digital rights, government publications, and industry reports from major tech companies. Case studies from countries such as Myanmar, the United States, and European Union member states were examined to understand the global variation in digital content regulation and the protection of freedom of expression.

## **4. RESULTS**

### **Growing Challenges to Freedom of Expression**

The results of this study confirm that the digital age has introduced new challenges for protecting freedom of expression. The rapid dissemination of content on social media platforms means that harmful information, including misinformation and hate speech, can spread rapidly, reaching a large audience before it can be effectively addressed.

### **Increased Government Intervention in Content Regulation**

The study found that governments are increasingly intervening in the regulation of online content. In some cases, this has led to the imposition of restrictions on speech, particularly in authoritarian regimes where digital surveillance is used to control dissent. In democratic countries, content moderation policies have sparked debates over the limits of government intervention and the potential for censorship.

### **Tech Companies' Role in Content Moderation**

The findings suggest that tech companies play a central role in content moderation but face criticism for either over-moderating or under-moderating content. Platforms such as Facebook and Twitter have been criticized for failing to prevent the spread of harmful content, while others have faced backlash for censoring users or deleting content that challenges political or social norms.

### **Public Awareness and Calls for Regulation**

Public awareness of the risks associated with digital platforms, including misinformation and hate speech, has led to increased calls for stronger regulation. Advocacy groups, digital rights organizations, and legal experts are advocating for clearer guidelines on

content moderation, as well as the establishment of independent oversight bodies to ensure transparency and accountability in decision-making.

## **5. DISCUSSION**

The discussion centers on the need for a balanced regulatory approach that safeguards both freedom of expression and the protection of individuals from harm. While freedom of speech is a fundamental right, the study suggests that certain limitations are necessary to prevent the spread of harmful content that can incite violence, discrimination, and social unrest.

### **Clear and Transparent Content Moderation Policies**

To ensure that content moderation does not infringe on free speech, platforms and governments must adopt clear and transparent guidelines for identifying and removing harmful content. These policies should be based on international human rights standards and be implemented in a way that minimizes bias and protects freedom of expression.

### **International Cooperation and Regulatory Frameworks**

Given the global nature of the internet, the study suggests that international cooperation is essential for creating harmonized content regulation policies. Collaborative efforts between governments, tech companies, and international organizations can help develop guidelines that protect human rights while addressing the risks associated with digital platforms.

### **Balancing Free Speech and Harm Prevention in Authoritarian Regimes**

In authoritarian regimes, where freedom of expression is often severely restricted, the risk of content moderation being used as a tool for censorship is high. The study highlights the importance of international human rights mechanisms to monitor and challenge government overreach in online content regulation.

### **Empowering Users and Promoting Digital Literacy**

One of the key findings of the study is the need for greater digital literacy and empowerment of users. Educating individuals about the risks of misinformation, the importance of critical thinking, and the ethical use of digital platforms can help mitigate some of the negative effects of unregulated free speech online.

## 6. CONCLUSION

The digital age has created significant challenges for the protection of freedom of expression, with the rise of misinformation, hate speech, and government surveillance. While freedom of speech remains a fundamental human right, the need to prevent harm online has led to calls for more effective content moderation and regulation.

This study emphasizes the importance of striking a balance between upholding free speech and preventing harm. Clear, transparent, and consistent content moderation policies, international cooperation, and the promotion of digital literacy are crucial steps toward achieving this balance. By respecting both rights and responsibilities, governments, tech companies, and individuals can work together to create a safer, more inclusive digital environment.

## REFERENCES

- Aro, L. (2020). Misinformation and disinformation in the digital era. *Journal of Information Policy*.
- Balkin, J. M. (2015). *Free speech in the digital age*. Oxford University Press.
- Balkin, J. M. (2018). The constitution in the information age. *Harvard Law Review*, 131(6), 1298-1349. <https://doi.org/10.2139/ssrn.3245590>
- Cohen, J. E. (2019). Between truth and power: The legal conundrums of fake news. *Harvard Law Review*, 132(5), 1143-1188. <https://doi.org/10.2139/ssrn.3279263>
- DeNardis, L. (2014). *The global war for internet governance*. Yale University Press.
- Fuchs, C. (2017). *Social media: A critical introduction*. Sage Publications.
- Gillespie, T. (2018). *Custodians of the internet: Platforms, content moderation, and the hidden decisions that shape social media*. Yale University Press.
- International Covenant on Civil and Political Rights. (1966). United Nations. <https://www.ohchr.org/en/professionalinterest/pages/ccpr.aspx>
- Liptak, A. (2021, June 17). Supreme Court rules on digital platforms' role in free speech. *The New York Times*. <https://www.nytimes.com>
- Poell, T., et al. (2019). Social media platforms and the regulation of content. *Media, Culture & Society*, 41(8), 1255-1273. <https://doi.org/10.1177/0163443719870797>
- Pomerantsev, P. (2019). *This is not propaganda: Adventures in the war against reality*. Faber & Faber.
- Tufekci, Z. (2017). *Twitter and tear gas: The power and fragility of networked protest*. Yale University Press.

UN General Assembly. (1948). Universal declaration of human rights. United Nations.  
<https://www.un.org/en/universal-declaration-human-rights>

Zeng, M. (2020). Content moderation and the ethics of digital communication. Cambridge University Press.

Zittrain, J. (2019). The future of the internet and how to stop it. Yale University Press.





## Implementation of Legal Protection for Citizenship Rights of Indonesian Former Transnational Terrorism Actors within the Indonesian Legal System

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**Abstract:** This research aims to analyze the implementation of legal protection for citizenship rights of former transnational terrorist Indonesian citizens within Indonesia's legal system. Using normative juridical method with statutory and conceptual approaches, this study examines secondary data from primary, secondary, and tertiary legal materials. The results show that Indonesia's legal system has an adequate legal framework to protect the citizenship rights of former transnational terrorists, although its implementation faces various challenges. The deradicalization program and status verification mechanism implemented by the government have not been fully effective due to inter-institutional coordination constraints and community resistance. Additionally, the study identifies that citizenship status cannot be automatically revoked without proper legal process according to Law No. 12 of 2006 on Citizenship, as terrorist groups cannot be categorized as "foreign military" as specified in the law. This research contributes significantly to the development of returnee handling policies by balancing aspects of national security and human rights protection.

**Keywords:** Citizenship, Former Terrorists, Human Rights, Indonesian Legal System.

### 1. INTRODUCTION

The transnational terrorism phenomenon has created complex challenges in national and international legal systems, particularly regarding citizenship rights protection. According to the National Counter-Terrorism Agency (BNPT) data, from 2014 to 2019, more than 1,321 Indonesian citizens were identified as having joined the transnational terrorist group Islamic State of Iraq and Syria (ISIS) in various countries.<sup>1</sup> This phenomenon created a legal dilemma when ISIS was defeated in 2019 and hundreds of former ISIS Indonesian citizens wanted to return to Indonesia.<sup>2</sup>

The Indonesian Constitution through Article 28D paragraph (4) of the 1945 Constitution guarantees everyone's right to citizenship.<sup>3</sup> This aligns with international legal principles as explained by Kusumaatmadja, emphasizing that citizenship is a fundamental right that must be protected.<sup>4</sup> However, Indonesian citizens' involvement in transnational terrorism creates complex legal and social dilemmas, especially when these former terrorists wish to return to Indonesia after ISIS's fall.<sup>5</sup>

<sup>1</sup> Benmelech, E. & Klor, E. (2020). What Explains the Flow of Foreign Fighters to ISIS? Terrorism and Political Violence, 32(7), 1.

<sup>2</sup> Luquerna, A. (2020). The Children of ISIS: Statelessness and Eligibility for Asylum Under International Law. Chicago Journal of International Law, 21(1), 151.

<sup>3</sup> The 1945 Constitution of the Republic of Indonesia.

<sup>4</sup> Mochtar Kusumaatmadja, *Pengantar Hukum Internasional*, (Bandung: Alumni, 2003), p. 378.

<sup>5</sup> Hamzah Junaid, "Pergerakan Kelompok Terorisme dalam Perspektif Barat dan Islam", in *Journal of Sulesana*, Volume.8/No.2/2013, p. 119.

The Indonesian government's decision through the closed cabinet meeting on February 11, 2020, to reject the repatriation of hundreds of former ISIS Indonesian citizens sparked debate from national and international legal perspectives.<sup>6</sup> On one side, there are national security interests to prevent potential radicalization and terrorist acts. On the other side, citizenship revocation under Law No. 12 of 2006 on Citizenship can only be done if someone "joins foreign military service without prior permission from the President".<sup>7</sup> This raises questions considering ISIS cannot be categorized as "foreign military" as it does not meet state qualifications under the 1933 Montevideo Convention.<sup>8</sup>

The complexity of this issue requires an in-depth study of legal protection implementation for citizenship rights of former transnational terrorist Indonesian citizens within Indonesia's legal system. This research is important to provide a clear legal framework in handling returnees while balancing national security aspects and human rights protection. This issue's complexity increases with the state's obligation to protect citizenship rights as guaranteed in Article 28D paragraph (4) of the 1945 Constitution and Article 15 of the Universal Declaration of Human Rights.<sup>9</sup> According to UNHCR data, citizenship revocation policies against foreign terrorist fighters potentially create stateless person problems that contradict international legal principles. This aligns with Lambert's findings emphasizing that citizenship is "the right to have rights" that is fundamental in the international legal framework.<sup>10</sup>

The citizenship status of former ISIS Indonesian citizens also has implications for more than 100 children in detention camps like Al-Hol in Syria.<sup>11</sup> This condition requires a comprehensive approach considering national security aspects, human rights protection, and children's best interests as regulated in the Convention on the Rights of the Child (CRC).<sup>12</sup> Deradicalization and social reintegration programs become key in handling returnees while maintaining balance between law enforcement and human rights protection.

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<sup>6</sup> Setyawan, F. (2020, February 5). *Jokowi Tak Setuju Pulangkan 660 WNI Eks ISIS ke Indonesia*. CNN Indonesia.

<sup>7</sup> See Law Number 12 of 2006 concerning Indonesian Citizenship.

<sup>8</sup> Razak, I. (2020, February 11). *To Welcome or Deny Former IS Fighters, Avoiding Old Mistakes*. The Jakarta Post.

<sup>9</sup> Lambert, H. (2015). *Comparative Perspective on Arbitrariness of Nationality and Refugee Status*. *International and Comparative Law Quarterly*, 64(1), 725.

<sup>10</sup> Waas, L., Chickera, A., & Albarazi, Z. (2014). *The World's Stateless*. Wolf Legal Publisher.

<sup>11</sup> Lambert, H. (2017). *Temporary Refuge from War: Customary International Law and the Syrian Conflict*. *International and Comparative Law Quarterly*, 66(3), 74.

<sup>12</sup> Fox-Decent, E. (2017). *The Authority of Human Rights*. *The University of Toronto Law Journal*, 67(4), 601.

Houry, N. (2016, November 23). *Children of the Caliphate: What to Do About Kids Born Under ISIS*. Foreign Affairs.

## 2. LITERATURE REVIEW

Various studies have been conducted regarding legal protection for former transnational terrorist Indonesian citizens. Several relevant previous studies can be grouped into several main themes:

### A. Citizenship Status of Former Terrorists

Rusdi (2020) in his research analyzed the citizenship status of Indonesian citizens who joined ISIS based on Law No. 12 of 2006. This research found that there is no strong legal basis for automatically revoking the citizenship of former ISIS Indonesian citizens, as ISIS cannot be categorized as “foreign military” as defined in the law.<sup>13</sup>

Similarly, Zebua (2019) in her research on international legal protection for former ISIS members found that citizenship rejection and revocation can create stateless person problems that contradict international legal principles.<sup>14</sup>

The principle of state sovereignty recognizes each state's authority to determine its citizens' citizenship status through national law. However, state discretion is limited by international obligations as regulated in the 1930 Hague Convention on Conflict of Nationality Laws.<sup>15</sup> Waas and Jaghai explain that citizenship revocation must meet the principles of non-discrimination, proportionality, and due process of law.<sup>16</sup>

### B. Deradicalization, Reintegration and Returnee Handling

Hikam (2016) in his study on deradicalization emphasizes the importance of civil society's role in deradicalization and reintegration programs for former terrorists. This research found that the success of deradicalization programs heavily depends on community acceptance and comprehensive institutional support.<sup>17</sup>

Prasetyo (2020) in his research at North Sumatra Regional Police revealed that handling former terrorists requires a multi-dimensional approach involving legal, social, and security aspects. This study found that inter-institutional coordination is a key factor in handling returnees.<sup>18</sup>

Hegghammer developed the concept of foreign terrorist fighters with four main characteristics: (1) joining to operate in insurgency, (2) not having citizenship of the conflict state, (3) not being affiliated with official military organizations, and (4) not being paid.<sup>19</sup>

<sup>13</sup> Moh. Ramdan Rusdi, “*Status Kewarganegaraan WNI Yang Bergabung Dengan ISIS...*”, *Loc. Cit.*, p. 1963-1964.

<sup>14</sup> Claresta Sri Nifili Zebua, “*Perlindungan Hukum Internasional Terhadap Mantan Anggota ISIS Yang Ditolak Kembali ke Negaranya*”, Thesis of Law Faculty, University of Atma Jaya Yogyakarta, 2019.

<sup>15</sup> Mantu, S. (2018). ‘*Terrorist*’ Citizens and the Human Rights to Nationality. *Journal of Contemporary European Studies*, 26(1), 30

<sup>16</sup> Waas, L. & Jaghai, S. (2018). All Citizens are Created Equal, but Some are More Equal Than Others. *Netherlands Law Review*, 65(3), 414.

<sup>17</sup> Muhammad A.S Hikam, *Deradikalisasi: Peran Masyarakat Sipil Indonesia...*, *Op. Cit.*, p. 34-35.

<sup>18</sup> Achmad Yudha Prasetyo, “*Tinjauan Kriminologi Terhadap Pelaku Tindak Pidana Terorisme*”, Thesis of Law Faculty, University of Muhammadiyah Sumatra Utara Medan, 2020.

<sup>19</sup> Scott, G. & Podder, S. (2015). Social Media, Recruitment, Allegiance, and the Islamic State. *Perspectives on Terrorism*, 9(4).

UN Security Council Resolution 2178 (2014) requires member states to take legal action against foreign terrorist fighters while respecting human rights.<sup>20</sup>

Renard and Coolset's study identifies three main approaches in handling returnees: (1) criminal prosecution, (2) deradicalization programs, and (3) social reintegration.<sup>21</sup> The effectiveness of these programs depends on multi-stakeholder coordination and community support.<sup>22</sup> Research in various countries shows the importance of individual assessment approaches in determining risk levels and appropriate intervention programs.<sup>23</sup>

### C. Child Protection in Terrorism Context

Luquerna analyzed the legal status of children born or brought to ISIS territory, emphasizing the principle of the best interests of the child according to the Convention on the Rights of the Child.<sup>24</sup> Houry found that former ISIS children face risks of statelessness and psychological trauma requiring special handling.<sup>25</sup>

### D. Human Rights Aspects in Counter-terrorism Policy

Ratnasari (2017) examined sanctions against terrorism perpetrators from Islamic jurisprudence and positive law perspectives. This research found alignment between Islamic law principles and positive law in providing sanctions to terrorism perpetrators while considering human rights aspects.<sup>26</sup>

Latukau (2020) in his research on human rights protection for terrorism perpetrators emphasizes the importance of balance between law enforcement and human rights protection. This study found that due process of law must be guaranteed even in the context of terrorism crimes.<sup>27</sup>

Burchardt & Gulati examined the balance between national security and human rights protection in handling foreign terrorist fighters.<sup>28</sup> This study found that citizenship revocation as a counter-terrorism instrument potentially violates international legal

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<sup>20</sup> Kopitzke, C. (2017). Security Council Resolutions 2178 (2014): An Ineffective Response to the Foreign Terrorist Fighters Phenomenon. *Indiana Journal of Global Legal Studies*, 24(1), 24.

<sup>21</sup> Renard, T. & Coolset, R. (2020). *From Bad to Worse: The Fate of European Foreign Fighters and Families Detained in Syria*. Egmont Institute..

<sup>22</sup> Hoffman, A. & Furlan, M. (2020). Challenges Posed by Returning Foreign Fighters.

<sup>23</sup> Boeckstein, T. (2018). Deprivation of Nationality as a Counter-Terrorism Tool: a Comparative Analysis of Canadian and Dutch Legislation. *The Transnational Human Rights Review*, 5(1), 2.

<sup>24</sup> Luquerna, A. (2020). The Children of ISIS: Statelessness and Eligibility for Asylum Under International Law. *Chicago Journal of International Law*, 21(1), 151.

<sup>25</sup> Houry, N. (2016). Children of the Caliphate: What to Do About Kids Born Under ISIS. *Foreign Affairs*.

<sup>26</sup> Fauziah Ratnasari, "Sanksi Terhadap Pelaku Tindak Pidana Terorisme Ditinjau Dari Perspektif Fiqh Jinayah Dan Undang-undang Nomor 15 Tahun 2003", Skripsi Fakultas Syariah dan Hukum, Universitas Raden Fatah Palembang, 2017.

<sup>27</sup> Fikry Latukau, "Perlindungan Hukum Asasi Pelaku Terorisme Sebagai Bentuk Penerapan Hukum Yang Berkepastian dan Berkeadilan", in *Journal of Judicial Review*, Volume 22, Number 1, 2020, p. 7.

<sup>28</sup> Burchardt, D. & Gulati, R. (2018). International Counter-Terrorism Regulation and Citizenship Stripping Laws – Reinforcing Legal Exceptionalism. *Journal of Conflict and Security Law*, 32(2), 13.

principles.<sup>29</sup> Wautelet emphasizes the importance of non-discrimination principles in citizenship revocation policies.<sup>30</sup>

This literature review shows research gaps in comprehensive legal protection implementation for former terrorists, particularly in Indonesia's legal system context which must balance national security aspects, human rights protection, and international obligations.

### 3. METHODS

This research uses a normative juridical method with statutory approach (statute approach) and conceptual approach. The normative juridical method was chosen because this research examines the application of rules or norms in positive law regarding legal protection for former transnational terrorist Indonesian citizens. The research uses secondary data consisting of primary legal materials including the 1945 Constitution, Law No. 12 of 2006 on Citizenship, Law No. 5 of 2018 on Terrorism Crime Prevention, and Government Regulation No. 2 of 2007; secondary legal materials including legal literature, research results, and scientific journals; and tertiary legal materials including legal dictionaries and encyclopedias supporting the research.<sup>31</sup>

Data collection was conducted through library research by reviewing and analyzing various legal documents, literature, and previous research results related to legal protection for former transnational terrorist Indonesian citizens. The collected data was then analyzed qualitatively using the deductive method, namely by analyzing problems from general matters to specific matters.<sup>32</sup>

The analysis was conducted in three main stages: first, identifying legal substances related to citizenship protection; second, analyzing legal protection implementation; and third, formulating conclusions based on analysis results. This approach was chosen to obtain comprehensive understanding about legal protection implementation for former transnational terrorist Indonesian citizens in Indonesia's legal system.

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<sup>29</sup> Lloyd, M. (2017). Foreign Fighters Under International Law and Beyond. *Melbourne Journal of International Law*, 18(1), 4.

<sup>30</sup> Wautelet, P. (2017). Deprivation of Citizenship for 'Jihadists' Analysis of Belgian and French Practice and Policy in Light of the Principle of Equal Treatment.

<sup>31</sup> Johan Yasin, "*Hak Asasi Manusia dan Hak Serta Kewajiban Warga Negara Dalam Hukum Positif Indonesia*", in *Journal of Syiar Hukum: Journal of Ilmu Hukum*, Volume 11 Number 2, 2009, p. 7.

<sup>32</sup> Sunardi, *Terorisme dalam Perspektif Politik Hukum Pidana Internasional*, (Tangerang Selatan: Nirmana MEDIA, 2017), p. 1.

#### 4. RESULTS

The research results show important findings regarding the citizenship status of former transnational terrorist Indonesian citizens in Indonesia's legal system. Analysis of Law No. 12 of 2006 on Citizenship shows that there is no strong legal basis for automatically revoking citizenship status of former terrorists. The provisions of Article 23 letter d of the Citizenship Law regulating citizenship loss due to "joining foreign military service without Presidential permission" cannot be directly applied, considering ISIS and other terrorist groups cannot be categorized as "foreign military" because they lack internationally recognized state elements and lack sovereign recognition from any state.<sup>33</sup>

The research also reveals that the process of citizenship loss must go through clear legal mechanisms as regulated in Government Regulation No. 2 of 2007. This mechanism includes substantive examination by the Minister, verification and clarification to the concerned party, and establishment of legally accountable decisions. Legal protection implementation for former terrorist Indonesian citizens is carried out through two approaches: preventive legal protection including strict immigration checks, citizenship status verification, and deradicalization programs; and repressive legal protection including fair trial processes according to the Criminal Procedure Code and guarantees of suspects/defendants' rights.<sup>34</sup>

The research findings also identify several challenges in legal protection implementation, including suboptimal inter-institutional coordination, community resistance to reintegration programs, resource limitations in deradicalization programs, and citizenship status verification complexity. This shows the need for institutional system strengthening and apparatus capacity improvement in handling former transnational terrorist Indonesian citizens.<sup>35</sup>

Special attention is given to protecting children of former terrorist Indonesian citizens. The research finds that the principle of children's best interests must be prioritized, including preventing statelessness in children and guaranteeing access to education and health.<sup>36</sup> Rehabilitation programs for children include psychosocial assistance, anti-radicalism education, and family reintegration. Implementation of these programs requires a multidisciplinary approach involving various stakeholders.<sup>37</sup>

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<sup>33</sup> Moh. Ramdan Rusdi, "Status Kewarganegaraan WNI Yang Bergabung Dengan ISIS...", p. 1963.

<sup>34</sup> Fikry Latukau, "Perlindungan Hukum Asasi Pelaku Terorisme...", *Loc. Cit.*, p. 7.

<sup>35</sup> Elga Andina, "Wacana Pemulangan Anak-anak Kombatans ISIS", in *Journal of Pusat Penelitian Badan Keahlian DPR RI*, Volume XII, Number 4, 2020, p. 5.

<sup>36</sup> Houry, N. (2016). Children of the Caliphate: What to Do About Kids Born Under ISIS. *Foreign Affairs*.

<sup>37</sup> Waas, L. & Jaghai, S. (2018). All Citizens are Created Equal, but Some are More Equal Than Others. *Netherlands Law Review*, 65(3), 414.

From an international law perspective, the research identifies Indonesia's obligation to meet human rights standards including prohibition of arbitrary citizenship revocation, prevention of statelessness, and application of non-discrimination principles.<sup>38</sup> International cooperation also becomes an important aspect in handling former terrorist Indonesian citizens, including intelligence information exchange, mutual legal assistance, and counter-terrorism policy harmonization.

These research results show the need for a comprehensive approach in handling former terrorist Indonesian citizens that considers legal, security, and humanitarian aspects. The existing legal framework needs improvement to accommodate this issue's complexity, especially in balancing national security interests with human rights protection.

## 5. DISCUSSION

This research raises several important aspects that need to be discussed regarding legal protection implementation for former transnational terrorist Indonesian citizens. Citizenship status, which is a fundamental right guaranteed by the constitution, faces issues related to involvement in transnational terrorism that poses national security threats. The research shows that the appropriate approach is to apply due process of law principles in handling former terrorists, conduct individual verification and assessment, and provide measurable rehabilitation and reintegration mechanisms.<sup>39</sup>

Analysis of the existing legal framework indicates the need for more specific regulation refinement regarding returnee handling, the importance of harmonizing legislation related to citizenship and terrorism, and the need for clear standard operating procedures in citizenship status verification. These findings align with the need to strengthen the legal basis in handling former transnational terrorist Indonesian citizens.<sup>40</sup>

Regarding deradicalization and reintegration programs, research indicates that program success depends on a comprehensive approach involving ideological and religious aspects, psychological and social aspects, and economic and empowerment aspects. Active roles of various stakeholders, including government institutions, civil society organizations, and religious and community leaders become key to program success. However, several main challenges identified include verification complexity in the form of data and information

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<sup>38</sup> Kopitzke, C. (2017). Security Council Resolutions 2178 (2014). *Indiana Journal of Global Legal Studies*, 24(1), 24.

<sup>39</sup> Fikry Latukau, "*Perlindungan Hukum Asasi Pelaku Terorisme...*", *Loc. Cit.*, p. 7-8.

<sup>40</sup> Moh. Ramdan Rusdi, "*Status Kewarganegaraan WNI Yang Bergabung Dengan ISIS...*", *Loc. Cit.*, p. 1964.

limitations, difficulty in proving involvement levels, and social resistance in the form of community stigma and concerns about re-radicalization.<sup>41</sup>

The research identifies two main challenges in implementation. First, verification complexity including data and information limitations, difficulty in proving involvement levels, and cross-country coordination.<sup>42</sup> Second, social resistance including community stigma, concerns about re-radicalization, and community rejection.<sup>43</sup> To overcome these challenges, institutional strengthening is needed through improved inter-institutional coordination, apparatus capacity building, and effective monitoring system development.<sup>44</sup>

Community-based approaches also become important keys, including involvement of religious and community leaders, public education programs, and social resilience strengthening.<sup>45</sup> The success of deradicalization and reintegration programs depends on synergy between government, civil society, and other stakeholders. This shows that handling former terrorist Indonesian citizens requires a holistic approach considering legal, security, social, and humanitarian aspects.

## 6. CONCLUSION

Based on the research results and discussion conducted, it can be concluded that the citizenship status of former transnational terrorist Indonesian citizens cannot be automatically revoked because there is no strong legal basis in Law No. 12 of 2006 on Indonesian Citizenship. Transnational terrorist groups like ISIS cannot be categorized as "foreign military" as referred to in Article 23 letter d of the Citizenship Law, and citizenship status revocation must go through fair legal process in accordance with due process of law principles.

Legal protection implementation for former terrorist Indonesian citizens needs to be carried out comprehensively through preventive and repressive approaches, with deradicalization and social reintegration programs as important components in legal protection efforts. However, implementation effectiveness is still constrained by various factors such as suboptimal inter-institutional coordination, community resistance, and resource limitations. This shows the need for institutional system strengthening and capacity building in handling returnees.

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<sup>41</sup> Muhammad A.S Hikam, *Deradikalisasi: Peran Masyarakat Sipil Indonesia...*, Loc. Cit., p. 34.

<sup>42</sup> Waas, L. & Jaghai, S. (2018). All Citizens are Created Equal, but Some are More Equal Than Others. *Netherlands Law Review*, 65(3), 414.

<sup>43</sup> Luquerna, A. (2020). The Children of ISIS: Statelessness and Eligibility for Asylum Under International Law. *Chicago Journal of International Law*, 21(1), 151.

<sup>44</sup> Fox-Decent, E. (2017). The Authority of Human Rights. *The University of Toronto Law Journal*, 67(4), 601.

<sup>45</sup> Kopitzke, C. (2017). Security Council Resolutions 2178 (2014). *Indiana Journal of Global Legal Studies*, 24(1), 24.



For future development, refinement of the legal framework related to handling former transnational terrorist Indonesian citizens, strengthening institutional capacity in deradicalization programs, and increasing community participation in social reintegration programs are needed. This approach is expected to balance national security interests with human rights protection in handling former transnational terrorist Indonesian citizens.

## LIMITATION

This research has several limitations that need to be identified for future research development. In terms of data and access, this research only uses secondary data from published sources, without direct access to primary data from former transnational terrorists. This causes limitations in verifying data related to the exact number of Indonesian citizens involved in transnational terrorism networks.

From the research scope aspect, the analysis conducted is limited to Indonesia's positive law perspective and has not included comparative studies with former terrorist handling practices in other countries. Additionally, the research period limited between 2014-2020 may not yet describe the latest developments in handling former transnational terrorist Indonesian citizens.

Methodological limitations also need to be considered, given that this research is normative with a library research approach and has not included empirical field research. This causes limitations in directly measuring the effectiveness of deradicalization and social reintegration program implementation. These limitations can be considerations for more comprehensive future research.

## REFERENCES

- Andina, Elga, 2020, “*Wacana Pemulangan Anak-anak Kombatan ISIS*”, in Journal of Pusat Penelitian Badan Keahlian DPR RI, Volume XII, No. 4.
- Benmelech, E. & Klor, E. (2020). What Explains the Flow of Foreign Fighters to ISIS? *Terrorism and Political Violence*, 32(7), 1.
- Boeckstein, T. (2018). Deprivation of Nationality as a Counter-Terrorism Tool: a Comparative Analysis of Canadian and Dutch Legislation. *The Transnational Human Rights Review*, 5(1), 2.
- Burchardt, D. & Gulati, R. (2018). International Counter-Terrorism Regulation and Citizenship Stripping Laws – Reinforcing Legal Exceptionalism. *Journal of Conflict and Security Law*, 32(2), 13.

- Fox-Decent, E. (2017). The Authority of Human Rights. *The University of Toronto Law Journal*, 67(4), 601.
- Hikam, Muhammad A.S, 2016, *Deradikalisasi: Peran Masyarakat Sipil Indonesia Membendung Radikalisme*, (Jakarta: PT Kompas Media Nusantara).
- Hoffman, A. & Furlan, M. (2020). Challenges Posed by Returning Foreign Fighters.
- Houry, N. (2016, November 23). *Children of the Caliphate: What to Do About Kids Born Under ISIS*. Foreign Affairs.
- Junaid, Hamzah, “*Pergerakan Kelompok Terorisme dalam Perspektif Barat dan Islam*”, in *Journal of Sulesana*, Volume.8/No.2/2013.
- Kopitzke, C. (2017). Security Council Resolutions 2178 (2014). *Indiana Journal of Global Legal Studies*, 24(1), 24.
- Kusumaatmadja, Mochtar, 2003, *Pengantar Hukum Internasional*, (Bandung: Alumni).
- Lambert, H. (2015). Comparative *Perspective* on Arbitrary of Nationality and Refugee Status. *International and Comparative Law Quarterly*, 64(1), 725.
- Lambert, H. (2017). Temporary Refuge from War: Customary International Law and the Syrian Conflict. *International and Comparative Law Quarterly*, 66(3), 74.
- Latukau, Fikry, 2020, “*Perlindungan Hukum Asasi Pelaku Terorisme Sebagai Bentuk Penerapan Hukum Yang Berkepastian dan Berkeadilan*”, in *Journal of Judicial Review*, Volume 22, No. 1.
- Law Number 12 of 2006 concerning Indonesian Citizenship
- Lloydd, M. (2017). Foreign Fighters Under International Law and Beyond. *Melbourne Journal of International Law*, 18(1), 4.
- Luquerna, A. (2020). The Children of ISIS: Statelessness and Eligibility for Asylum Under International Law. *Chicago Journal of International Law*, 21(1), 151.
- Mantu, S. (2018). “Terrorist” Citizens and the Human Rights to Nationality. *Journal of Contemporary European Studies*, 26(1), 30.
- NN, <https://www.cnnindonesia.com/nasional/penolakan-wni-eks-isis-dan-ujung-jalan-program-deradikalisasi>, accessed on Desember 15, 2024.
- Prasetyo, Achmad Yudha, 2020, “*Tinjauan Kriminologi Terhadap Pelaku Tindak Pidana Terorisme*”, Thesis of Law Faculty, University of Muhammadiyah Sumatra Utara Medan.
- Ratnasari, Fauziah, 2017, “*Sanksi terhadap Pelaku Tindak Pidana Terorisme Ditinjau dari Perspektif Fiqh Jinayah dan Undang-Undang Nomor 15 Tahun 2003*”, Thesis of Faculty of Syari’a and Law, University of Raden Fatah Palembang.
- Renard, T. & Coolset, R. (2020). From Bad to Worse: The Fate of European Foreign Fighters and Families Detained in Syria. Egmont Institute.

- Rusdi, Moh. Ramdan, 2020, “*Status Kewarganegaraan WNI Yang Bergabung Dengan ISIS Berdasarkan Undang-undang Nomor 12 Tahun 2006 Tentang Kewarganegaraan*”, in *Journal of Dinamika*, Volume 26, No. 17.
- Scott, G. & Podder, S. (2015). Social Media, Recruitment, Allegiance, and the Islamic State. *Perspectives on Terrorism*, 9(4).
- Spiro, P. (2011). A New International Law of Citizenship. *The American Journal of International Law*, 105(4), 694.
- Sunardi, 2017, *Terorisme dalam Perspektif Politik Hukum Pidana Internasional*, (Tangerang Selatan: Nirmana MEDIA).
- The 1945 Constitution of the Republic of Indonesia.
- Waas, L. & Jaghai, S. (2018). All Citizens are Created Equal, but Some are More Equal Than Others. *Netherlands Law Review*, 65(3), 414.
- Waas, L., Chickera, A., & Albarazi, Z. (2014). *The World's Stateless*. Wolf Legal Publisher.
- Wautelet, P. (2017). Deprivation of Citizenship for 'Jihadists' Analysis of Belgian and French Practice and Policy in Light of the Principle of Equal Treatment.
- Yasin, Johan, 2009, “*Hak Asasi Manusia dan Hak Serta Kewajiban Warga Negara Dalam Hukum Positif Indonesia*”, in *Journal of Syiar Hukum: Journal of Ilmu Hukum*, Volume 11 No. 2.
- Zebua, Claresta Sri Nifili, 2019, “*Perlindungan Hukum Internasional Terhadap Mantan Anggota ISIS Yang Ditolak Kembali ke Negaranya*”, Thesis of Law Faculty, University of Atma Jaya Yogyakarta.

# The Role of Digital Technology and AI in Evolving Practices of Islamic Family Law

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**Abstract:** This research explores the role of digital technology and artificial intelligence (AI) in transforming Islamic family law practices, with a focus on efficiency, accessibility, and justice. This study aims to analyze how technology supports administrative processes, legal decision-making, and public literacy toward Islamic law. The method used is a multidisciplinary approach that integrates the perspectives of sharia law, technology, and ethics. The results show that digital technology improves efficiency through document digitization, online registration, and virtual hearings, while AI makes a significant contribution through big data analysis to understand family dispute patterns and offer algorithm-based recommendations. However, there are challenges related to algorithm bias, data security, and compliance with sharia values. The study emphasizes the importance of collaboration between scholars, technology experts, and legal practitioners to ensure the adoption of technology that is aligned with maqashid al-shariah, in order to create an adaptive and inclusive Islamic family legal system in the digital era.

**Keywords:** Islamic Family Law, Artificial Intelligence (AI), Document Digitization.

## 1. INTRODUCTION

The development of digital technology and artificial intelligence (*Artificial Intelligence/AI*) has brought significant changes in various aspects of human life, including in the field of law (Perc et al., 2019). In the era of digitalization, technology is not only used to facilitate communication and access to information but also to support complex decision-making, such as in the judicial field (Rademacher, 2019). In developed countries, digital technologies have been implemented to simplify legal procedures, digitize documents, and even support case analysis through AI-based algorithms (Greenstein, 2022). This shows that technology can be an effective tool to improve efficiency, accuracy, and transparency in the legal system (Laptev & Fedin, 2020).

Digital transformation has become a major force that has changed various aspects of human life, including in the rule of law, especially Islamic family law (Sutrisno, Mappasessu, Badrah Uyuni & Iqlima Zahari, Arditya Prayogi, Mohammad Ridwan, Muhammad Taqiyuddin Pratama, 2011). Digitalization allows for easier access to legal information, speeds up administrative procedures, and presents a new platform for dispute resolution (Veldhoven & Vanthienen, 2022). In the context of Islamic family law, digitalization can support the process of registering marriages, divorces, and inheritance distribution, by providing a more transparent, efficient, and organized system (Sadat et al., 2023).

One real example is the implementation of e-courts in several religious courts in Indonesia, which allows online case registration, document uploading, and virtual hearings(Darmawan Darmawan, Suhaimi Suhaimi, Muhammad Natsir, T. Rasyidin T. Rasyidin, 2023). This system not only makes it easier for the public to access justice, but also helps reduce the time and costs associated with the legal process(Qodariah Barkah, Cholidi Cholidi, Siti Rochmiyatun, Sulikah Asmorowati, 2023). This is relevant in the context of Islamic family law, where many cases involve parties with limited access to conventional legal facilities(Antasari, 2021).

At the same time, the role of artificial intelligence (AI) in accelerating and improving the accuracy of the legal process. AI can analyze big data patterns from previous cases to provide relevant insights for judges, clerics, or legal practitioners(Kraus et al., 2021). For example, AI algorithms can help identify the most appropriate verdicts based on Islamic legal principles, speeding up the decision-making process.

In addition, AI can also be used to support digital *ijtihad*, which is to assist scholars in compiling fatwas by automatically analyzing relevant classic texts (yellow books)(Bahrudin, 2019). This technology allows for a more responsive interpretation of the law to the needs of modern society, while still maintaining alignment with *maqashid al-shariah*(Andi Muhammad Akmal, 2018).

In the context of Islamic law, especially family law, the integration of technology is becoming increasingly relevant given the complexity of issues that often arise, such as marriage, divorce, child custody, and inheritance(Menchik, 2014). Islamic family law has unique characteristics that are based on sharia texts, which require in-depth interpretation according to the context of the times(Najmudin, 2021). Meanwhile, digital technology and AI offer great potential to help simplify administrative processes, analyze legal data, and support clerics and judges in giving decisions(Akour & Alenezi, 2022), which is in line with *maqashid al-shariah* (sharia goals).

However, in Indonesia, the adoption of digital technology in Islamic family law is still limited(Gunawan, 2017). Although there are efforts to modernize the e-court system in religious courts, its implementation has not been fully optimal(Ahmad, 2015). Many challenges are faced, including the lack of digital infrastructure, resistance from some parties who consider the technology incompatible with Islamic legal principles, as well as concerns related to algorithmic bias in AI(Capușneanu et al., 2021). This condition reflects the need to better understand how digital technology and AI can be effectively applied in the practice of Islamic family law.

This study identifies a research *gap* that is an important basis for conducting a more in-depth study related to the role of digital technology and AI in Islamic family law, namely the Limitations of Adoption of Digital Technology and AI in Islamic Family Law. Previous research shows that digital technology and AI have been widely used in the modern legal system, but their application in Islamic family law is still very limited. This is due to the lack of adequate digital infrastructure in many Muslim-majority countries, including Indonesia. There have not been many studies that have explored how AI can be specifically adapted to solve family law problems that have sharia value-based characteristics.

This research focuses on the role of digital technology and AI in supporting the development of Islamic family law, by exploring the opportunities and challenges faced. The scope of the study includes administrative, judicial, and legal *ijtihad* aspects, which are expected to contribute to creating a more adaptive, efficient, and fair family legal system in the midst of the digitalization era.

As such, digital transformation and the role of AI offer a great opportunity to reform the practice of Islamic family law, but it also requires a careful approach for these innovations to be in line with sharia values. Collaboration between technologists, scholars, and legal practitioners is urgently needed to ensure that the adoption of this technology supports justice, efficiency, and adaptability of Islamic family law in the digital era.

## **2. LITERATURE REVIEW**

This research underlines the difference in views on the compatibility of technology with sharia principles. On the one hand, technologies such as AI are considered capable of improving fairness and efficiency through data analysis and digitalization. However, on the other hand, resistance has emerged related to the risk of algorithmic bias and violation of Islamic values, especially on the issue of privacy and data security. Some literature supports digitization as a tool to bring access to justice closer, but others are concerned about the impact on the management of sensitive data. This technology makes it easier to draft fatwas and legal decisions, but it raises questions about the validity of laws made by non-human systems. Initiatives such as e-courts have shown positive results, but implementation at the rural community level still faces technical barriers and digital literacy.

### 3. METHODS

Using an interdisciplinary approach in the context of Islamic family law requires the integration of sharia legal, technological, and ethical perspectives. Steps in this study: First, Identify Research Problems by Determining Knowledge Gaps in the Application of Digital Technology and AI in the Field of Islamic Family Law. Identify key issues such as administrative efficiency, algorithm bias, and conformity with sharia values. The second Literature Study is Analyzing literature related to Islamic family law, maqashid al-shariah, legal digitization, and AI. Review case studies of technology adoption in other countries to compare practices. Third, designing research methods, a qualitative approach to understand the perception of scholars, technology experts, and legal practitioners. A quantitative approach to analyzing empirical data such as e-court usage statistics or AI algorithm simulation results. Furthermore, the Fourth conducts Data Collection and Data Analysis, Qualitative: Thematic analysis to identify patterns in the perception and challenges of technology implementation. Quantitative: Descriptive statistics to evaluate the efficiency of digitalization (e.g. case resolution time before and after the implementation of e-court). Validation of Findings: Triangulation of data to confirm the reliability of results from various sources. Reporting and Discussion, Integrating results from various disciplines to provide maqashid al-shariah-based recommendations.

### 4. RESULTS

Islamic family law, or often called *al-Ahwal al-Syakhsiyyah*, is a branch of Islamic law that regulates personal and family matters, such as marriage, divorce, maintenance, child custody (*hadhanah*), inheritance, and wills (Musyafah, 2020). The basis of Islamic family law is derived from the Qur'an, Sunnah, Ijma' (consensus of scholars), and Qiyas (analogy), which are then developed through *ijtihad* ulama (Has, 2013).

Islamic family law has unique characteristics because it is oriented towards the formation of the family as the basic unit of Islamic society, which is based on the principles of justice, benefit, and compassion (*rahmah*) (Wafa, 2021). This system serves not only to regulate the relationships between individuals in the family, but also to create *maqashid al-shariah*, namely protecting religion, soul, intellect, descendants, and property (Zulfa et al., 2023).

Islamic family law has a broad scope and is rooted in the values of justice, benefit, and balance (Siregar, 2014). With a solid foundation in sharia texts and flexibility in interpretation through *ijtihad*, this law is able to adapt to the challenges of the times, including in the context of digitalization and the application of modern technology (Syatar et al., 2023). A deep

understanding of the definition, principles, and scope of Islamic family law is essential to ensure that technological innovations, such as digitalization and AI, can be implemented without compromising the essence of sharia values.

*Maqashid al-shariah* is a relevant theoretical framework approach in applying digital technology and AI, especially in ensuring that these innovations are aligned with the sharia goals of creating justice, benefit, and protection for humanity (Supardin, 2017). With a strategic approach, technology can be a tool that empowers the people without sacrificing religious values (Sutrisno, 2024).

Using the theoretical foundation of *Maqashid al-Shariah*. This concept focuses on achieving *benefits* (usefulness) and preventing harm to humanity (Shidiq, 1970). Al-Ghazali and Ash-Syatibi, two prominent scholars, formulate that *maqashid al-shariah* includes five main needs that must be maintained, namely: *Hifzh al-Din* (Maintaining Religion), *Hifzh al-Nafs* (Keeping the Soul), *Hifzh al-'Aql* (Keeping Sense), *Hifzh al-Nasl* (Keeping the Offspring), *Hifzh al-Mal* (Safeguarding Assets) (Ibnu Sholeh, 2023). In the application of technology, *maqashid al-shariah* provides a value framework that ensures that technological innovation is aligned with the goals syariah. Some important principles in this context are the Public Benefit (*Maslahah 'Ammah*) that is, technology must be used for the collective good, such as improving access to justice, education, and health (Selyawati & Dewi, 2017). Then, the balance between Tradition and Modernization, namely technology must not contradict the basic values of Islam, but must be able to answer the challenges of the times (Gouda, 2013). Furthermore, damage prevention (*Dar' al-Mafasid*) namely technological innovation must avoid harm, such as privacy violations, data misuse, or the dissemination of harmful information (Mustapha et al., 2021). The application of digital technology and artificial intelligence (AI) in various aspects of life can be analyzed through the lens of *maqashid al-shariah* to ensure its benefits are in line with Islamic values (Basri, 2020).

## 5. DISCUSSION

Based on the identification of the limitations of the adoption of digital technology and AI in Islamic family law, that digital technology and AI can significantly improve efficiency and accessibility in the settlement of Islamic family law cases, such as marriage registration, filing divorce lawsuits, and inheritance distribution. The digitization of legal documents and the use of online platforms, such as e-courts, provide administrative convenience that supports the efficiency of the legal process. That AI has the ability to understand patterns of family disputes through big data analysis, which can be used to provide recommendations based on



sharia principles in cases such as divorce, child custody, and inheritance. AI can serve as a tool for scholars and judges in drafting rulings or fatwas, by ensuring that legal recommendations are in accordance with *maqashid al-shariah*.

The study found that there is no comprehensive framework to systematically integrate digital technology and AI with sharia values. The findings confirm that while digital technologies and AI have great potential to revolutionize Islamic family law, their application requires a careful approach. A policy framework that integrates *maqashid al-shariah*, improved digital infrastructure, and technological literacy is needed to ensure that this technology is not only efficient but also in accordance with sharia values.

Key findings	Description of Findings
Efficiency and Accessibility with Digital Technology	Digital technology and online platforms, such as e-courts, can improve efficiency in the administrative process of Islamic family law, such as marriage registration, filing divorce lawsuits, and inheritance distribution, while expanding public access.
AI as a Sharia-Based Decision Support	AI has the ability to understand family dispute patterns through big data analysis, which is useful in providing Legal Recommendations Sharia principles in divorce, child custody, and inheritance cases.
Tools for Scholars and Judges in Drafting Decisions	AI dapat digunakan sebagai alat bantu bagi ulama dan hakim untuk menyusun putusan atau fatwa yang lebih akurat dan konsisten, dengan tetap berpegang pada <i>maqashid al-shariah</i> .
Absence of Sharia-Technology Integration Framework	There is not yet a comprehensive framework that integrates digital technology and AI with sharia values, which is needed to ensure alignment between technological innovation and Islamic law.
The Importance of a Systematic Approach	These findings underscore the need for a policy framework that integrates <i>maqashid al-shariah</i> , improving digital infrastructure, and technological literacy to ensure that the application of these technologies is in accordance with sharia values and is efficient.

## Digitization of Documents and Administrative Processes in Islamic Family Law

Digital transformation has had a significant impact on Islamic family law practices, particularly in terms of efficiency and accessibility. One of the notable innovations is the digitization of documents and administrative processes, which include marriage registration, divorce, and inheritance documentation. This innovation not only provides practical benefits but is also an important step in supporting the goals of *maqashid al-shariah*, such as maintaining justice, benefits, and balance in the management of Islamic family law.

### 1. Digitization of Marriage Registration

The marriage registration process is an important step in Islamic family law, which serves to record the validity of marriage bonds legally and religiously. The digitization of this process brings several key benefits:

- **Online Registration:** The digital system allows couples to register their marriage online, reducing the time and cost of traveling to the religious affairs office (KUA).

- **Electronic Data Validation:** Technology helps integrate population data with marriage records, thus preventing duplication or inaccuracy of data.
- **Document Accessibility:** Digital marriage certificates can be stored in a secure database and accessed by couples through online platforms, making it easier to verify for future legal or administrative purposes.

## 2. Digitalization in the Divorce Process

Divorce is one of the cases that is often handled by religious courts. With digitalization, the divorce process has become more efficient and structured:

- **Online Lawsuit Registration:** Religious courts in several countries, including Indonesia, have adopted an *e-court* system that allows litigants to file divorce lawsuits online.
- **Virtual Hearings:** Under certain conditions, such as the pandemic, divorce hearings can be conducted online, providing flexibility for parties who have limited time or location.
- **Electronic Documentation:** All divorce-related documents, such as divorce certificates, are stored digitally for easier management and future accessibility.

## 3. Digitization of Inheritance Documentation

The division of inheritance is a crucial aspect of Islamic family law that often triggers conflicts if not managed properly. Digitization of inheritance documentation offers various advantages:

- **Inheritance Recording:** Digital technology allows for the organized recording of the deceased's assets, including property, financial assets, and other important documents.
- **Digital Inheritance Distribution System:** Several applications have been developed to calculate the division of inheritance based on the principles of Islamic law, minimizing manual calculation errors.
- **Secure Data Storage and Access:** Important documents, such as wills and inheritance deeds, can be stored digitally with multiple layers of security, avoiding the risk of loss or counterfeiting.

## 4. Benefits of Digitizing Documents and Administrative Processes

Digitalization in Islamic family law has had a real positive impact, including:

- **Process Efficiency:** Reduces the time and cost required to complete legal procedures.
- **Transparency and Accountability:** Digitally integrated data allows for better oversight of administrative processes, reducing the risk of fraud or abuse.

- **Increased Accessibility:** Technology helps people in remote areas to access legal services without having to come to a physical location.
- **Sustainability:** Digitalization reduces reliance on physical documents, supporting environmental sustainability.

Despite the many benefits, digitization in Islamic family law also faces challenges, not all people have access to technology, especially in rural or remote areas, so governments and religious institutions need to provide technology facilities and training for the community. The risk of personal data leakage is a major concern in digital systems, so it is necessary to improve cybersecurity systems with encryption technology and strict surveillance. Religious court employees and service users need to be trained to use technology well. Special training programs on digital technology and sharia law.

The digitization of documents and administrative processes in Islamic family law, especially related to marriage registration, divorce, and inheritance documentation, has made a significant contribution to improving efficiency and transparency. This innovation supports *maqashid al-shariah* by making it easier for people to fulfill their rights fairly and efficiently. However, the successful implementation of digitalization requires close cooperation between the government, religious institutions, and the community, as well as the handling of technical and ethical challenges that may arise.

### **The Contribution of AI in Islamic Family Law Practice**

The application of artificial intelligence (AI) in Islamic family law practice presents a significant transformation, especially in improving efficiency, accuracy, and justice in case resolution. By leveraging data-driven case resolution, big data analysis, and AI's ability to provide legal recommendations, this technology can support the goal of Islamic law, which is to create benefits (*maslahah*) and prevent harm (*mafsadah*).

Data-Based Case Resolution, AI enables the resolution of Islamic family law cases more efficiently by analyzing historical data and providing pattern-based solutions that have occurred. Some important aspects First, namely Legal Process Automation, AI can be used to automate administrative processes, such as document management and initial case analysis. Case Result Prediction, based on data from previous cases, AI can predict the likely outcome of a case, providing an initial picture to the judge and the parties. Increased Case Resolution Speed, AI can process large amounts of data quickly, speeding up legal proceedings without compromising the accuracy of analysis. For example, in the case of divorce disputes, AI can analyze data on factors that are often the cause of divorce, such as disharmony or economic problems, and help the court to take preventive steps or provide resolution recommendations.

Second Aspect: Big Data Analysis to Understand Family Dispute Patterns, Big data plays an important role in identifying the underlying patterns of various Islamic family law disputes. With its analytical capabilities, AI can provide deeper and strategic insights.

1. **Dispute Pattern Identification:** AI can map the most common types of family disputes, such as divorce, child custody disputes, or inheritance division disputes, based on existing court data.
2. **Socio-Cultural Analysis:** By processing demographic data, AI can help understand the relationship between cultural, educational, or economic backgrounds and the types of disputes that occur, supporting conflict prevention efforts through targeted legal education.
3. **Evaluation of the Effectiveness of Legal Policies:** The data analyzed by AI can be used to assess the effectiveness of applicable legal policies, allowing for future policy improvements.

For example, in inheritance division disputes, AI can analyze data from similar cases to identify the root causes of conflicts, such as lack of transparency or differences in legal interpretation, and recommend mitigation strategies. The third aspect is: AI as a Tool in Providing Legal Recommendations. AI can be a very useful tool for judges, lawyers, and the general public in understanding and resolving Islamic family law cases. Decision Support System, AI can assist judges by providing recommendations based on Islamic legal principles and previous case data, resulting in fairer and more consistent decisions. Digital Legal Consulting, AI-based platforms can provide answers to people's questions about Islamic family law, such as divorce procedures, child custody, or inheritance division.

**Translation of Islamic Law into Digital Language:** AI can integrate sharia principles into a technology-based legal system, making Islamic law more accessible to the wider community. **Example:** In inheritance management, AI can be used to calculate each heir's share according to the principle of faraid, speeding up a process that would normally require manual calculations and legal interpretation.

The use of AI in Islamic family law offers a variety of benefits, such as Time and Cost Efficiency, AI can speed up the case resolution process, reducing the time and costs incurred by the parties. **Transparency and Consistency:** Data-driven AI-generated recommendations can reduce potential bias in legal decisions. **Legal Accessibility,** with AI-based digital consultation, people who previously had difficulty accessing legal services can obtain information more easily and quickly. While AI has many benefits, its implementation in Islamic family law also faces challenges, it can reflect biases that exist in the data used to train it, thus influencing the fairness of decisions. The use of AI must be ensured not to contradict maqashid al-shariah and

other principles of Islamic law. Family law data is often sensitive, so a system is needed that is able to protect data privacy and security. Not all societies or legal institutions have access to or the ability to use AI technology.

To ensure the optimal benefits of AI in Islamic family law, several strategic steps need to be taken. **Multidisciplinary Collaboration:** Involving scholars, legal practitioners, and technology experts in the development of AI systems. **Increased Technology Literacy:** Providing training to judges, lawyers, and the public on the use of AI in law. **Sharia Principle-Based Evaluation:** Ensuring each AI-based system adheres to Islamic values through strict scrutiny. **Technology Infrastructure Development:** Expanding access to AI technology, especially in underdeveloped regions.

AI has great potential to revolutionize the practice of Islamic family law through data-driven case resolution, big data analysis, and legal recommendations. By using this technology wisely, Islamic family law can become more efficient, transparent, and inclusive, without sacrificing the sharia values on which it is based. However, successful AI implementation requires special attention to technical, ethical, and sharia challenges, as well as collaboration between various stakeholders.

**The Role of AI in Legal Decision-Making,** AI has great potential in supporting the decision-making process in Islamic family law, especially at the level of data analysis and legal interpretation. Some of its applications include; **Judicial Data Analysis,** AI can analyze thousands of previous court decisions to provide consistent decision recommendations in accordance with Islamic legal principles. **Digital Fatwa Management,** AI technology can be used to compile fatwas based on relevant sharia texts, supporting ulama in providing faster and more accurate answers. **Case Simulation,** AI-based systems can simulate the possible outcome of a case based on the parameters entered, helping the parties prepare legal strategies.

However, the use of AI in decision-making also raises concerns, especially related to algorithm bias, the validity of the decisions made, and the risk of dependence on technology.

With this technology, people can better understand their rights and obligations in Islamic family law, thereby minimizing conflicts due to legal ignorance. Digital technology and AI have a significant influence on Islamic family legal practices, especially in improving administrative efficiency, supporting legal decision-making, and expanding public access to legal literacy. However, to ensure the sustainability and benefits of this technology, there needs to be strict supervision and collaboration between technologists, scholars, and legal practitioners. This is important so that digital transformation not only supports technical

progress, but also maintains the essence of maqashid al-shariah as the legal foundation of the Islamic family.

## 6. CONCLUSION

This research shows that digital technology and artificial intelligence (AI) have great potential to improve efficiency, accessibility, and justice in Islamic family law. Administrative digitization such as online registration and virtual hearings has accelerated legal processes, while AI has enabled big data analysis to provide more accurate and sharia-based recommendations.

However, the implementation of this technology in the field of Islamic family law faces challenges, including limited digital infrastructure, algorithmic bias, and resistance from parties who doubt its suitability with Islamic values. In addition, there is no unified framework that systematically integrates technology with maqashid al-shariah.

This study focuses on the Islamic family legal system in Indonesia without including in-depth comparisons with other countries. Although AI is described as a potential tool, the study did not include direct testing of the technology in real-life case simulations. Further research needs to focus on developing a framework that integrates digital technology with maqashid al-shariah in an operational and practical manner. It is also necessary to implement technology simulations, such as AI applications for inheritance distribution or legal decision-making, to evaluate their effectiveness and validity.

## LIMITATION

As a critical assessment, the limitations of this study are mainly related to the scope of data and practical evaluation of the technology. Nevertheless, his findings provide a solid basis for further exploration, especially in integrating technological innovations with sharia-based Islamic family law.

## REFERENCES

- Ahmad. (2015). Peradilan Agama Di Indonesia. *Yudisia*, 6(2), 313–339.
- Akour, M., & Alenezi, M. (2022). Higher Education Future in the Era of Digital Transformation Mohammad Akour and Mamdouh Alenezi \* *Software. Education Sciences*, 12(784), 1–13.
- Andi Muhammad Akmal. (2018). Kehujahan Maqasid Al- Syari ' Ah. *Jurnal Pendidikan Studi Islam*, 4(1), 20–27.

- Antasari, R. (2021). Islam and Domestic Violence between Husbands and Wives: Indonesian Social and Cultural Perceptions. *Islamic Quarterly*, 65(3), 303–325.
- Bahrudin, M. (2019). Ilmu Ushul Fiqh. In *Journal of Chemical Information and Modeling* (Vol. 53, Issue 9).
- Basri, S. (2020). Hukum Waris Islam (Fara'Id) Dan Penerapannya Dalam Masyarakat Islam. *Jurnal Kepastian Hukum Dan Keadilan*, 1(2), 37. <https://doi.org/10.32502/khdk.v1i2.2591>
- Capușneanu, S., Mates, D., Türkeş, M. C., Barbu, C. M., Staraș, A. I., Topor, D. I., Stoenică, L., & Fülöp, M. T. (2021). The impact of force factors on the benefits of digital transformation in Romania. *Applied Sciences (Switzerland)*, 11(5), 1–21. <https://doi.org/10.3390/app11052365>
- Darmawan Darmawan, Suhaimi Suhaimi, Muhammad Natsir, T. Rasyidin T. Rasyidin, M. M. (2023). Relative Competence of the Sharia Court: Talaq Divorce Lawsuit and Protection of Women's Rights. 7(1), 84–100. <https://doi.org/10.22373/sjkh.v7i1.16053>
- Gouda, M. (2013). Islamic constitutionalism and rule of law: A constitutional economics perspective. *Constitutional Political Economy*, 24(1), 57–85. <https://doi.org/10.1007/s10602-012-9132-5>
- Greenstein, S. (2022). Preserving the rule of law in the era of artificial intelligence (AI). In *Artificial Intelligence and Law* (Vol. 30, Issue 3). Springer Netherlands. <https://doi.org/10.1007/s10506-021-09294-4>
- Gunawan, E. (2017). Pengaruh Teori Berlakunya Hukum Islam Terhadap Pelaksanaan Peradilan Agama Di Indonesia. *Jurnal Ilmiah Al-Syir'ah*, 15(2), 74–93. <https://doi.org/10.30984/as.v15i2.475>
- Has, A. W. (2013). Ijtihad Sebagai Alat Pemecahan Masalah Umat Islam. *Epistemé: Jurnal Pengembangan Ilmu Keislaman*, 8(1). <https://doi.org/10.21274/epis.2013.8.1.89-112>
- Ibnu Sholeh, M. (2023). Relevansi dan tantangan implementasi hukum islam dalam konteks sosial masyarakat modern. *As-Salam Jurnal Studi Hukum Islam & Pendidikan*.
- Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., & Roig-Tierno, N. (2021). Digital Transformation: An Overview of the Current State of the Art of Research. *SAGE Open*, 11(3). <https://doi.org/10.1177/21582440211047576>
- Laptev, V., & Fedin, V. (2020). Legal awareness in a digital society. *Russian Law Journal*, 8(1), 138–157. <https://doi.org/10.17589/2309-8678-2020-8-1-138-157>
- Menchik, J. (2014). The co-evolution of sacred and secular: Islamic law and family planning in Indonesia. *South East Asia Research*, 22(3), 359–378. <https://doi.org/10.5367/sear.2014.0220>
- Mustapha, Z., Kunhibava, S. B., & Muneeza, A. (2021). Legal and Shari'ah non-compliance risks in Nigerian Islamic finance industry: a review of the literature. *International Journal of Law and Management*, 63(2), 275–299. <https://doi.org/10.1108/IJLMA-03-2020-0075>
- Musyafah, A. A. (2020). Dasar Hukum Islam Bersifat Normatif Di Indonesia. *Islamic Law*, 2(1).

- Najmudin, D. (2021). Spirit Keilmuan Wahyu Memandu Ilmu Dalam Pengembangan Hukum Islam. *ADLIYA: Jurnal Hukum Dan Kemanusiaan*, 14(2), 243–256. <https://doi.org/10.15575/adliya.v14i2.9433>
- Perc, M., Ozer, M., & Hojnik, J. (2019). Social and juristic challenges of artificial intelligence. *Palgrave Communications*, 5(1), 1–7. <https://doi.org/10.1057/s41599-019-0278-x>
- Qodariah Barkah, Cholidi Cholidi, Siti Rochmiyatun, Sulikah Asmorowati, H. F. (2023). The Manipulation of Religion and The Legalization of Underage Marriages in Indonesia. 7(1), 1–20. <https://doi.org/10.22373/sjkh.v7i1.13316>
- Rademacher, T. (2019). Artificial intelligence and law enforcement. *Regulating Artificial Intelligence*, 35(4), 225–254. [https://doi.org/10.1007/978-3-030-32361-5\\_10](https://doi.org/10.1007/978-3-030-32361-5_10)
- Sadat, A., Nur, M. T., Sadik, M., & Baharuddin, A. Z. (2023). Determination of Auspicious Days in Wedding Traditions in Mandar, West Sulawesi: Perspective of Islamic Law. *Samarah*, 7(3), 1422–1446. <https://doi.org/10.22373/sjkh.v7i3.17864>
- Selyawati, N. P., & Dewi, M. C. (2017). Implementasi Nilai-Nilai HAM Universal Berdasarkan Universal Declaration of Human Rights Di Indonesia. *Lex Scientia Law Review*, 1(1), 41–56. <https://journal.unnes.ac.id/sju/index.php/lslr/article/view/19481/9288>
- Shidiq, G. (1970). Teori Maqashid Al-Syari'Ah Dalam Hukum Islam. *Majalah Ilmiah Sultan Agung*, 44(118), 117–130. <https://media.neliti.com/media/publications/220106-none.pdf>
- Siregar, A. H. (2014). Eksistensi Ijtihad Di Era Modern. *Wahana Inovasi*, 3(1), 65–72.
- Supardin. (2017). Produk Pemikiran Hukum Islam di Indonesia. *Al Qadau*. <https://doi.org/https://doi.org/10.24252/al-qadau.v4i2.5695>
- Sutrisno, Mappasessu, Badrah Uyuni, M. A. H., & Iqlima Zahari, Arditya Prayogi, Mohammad Ridwan, Muhammad Taqiyuddin Pratama, A. I. (2011). Pengantar Studi Islam. In *Pengantar Studi Islam*.
- Sutrisno, M. (2024). Metodologi Studi Islam Perspektif Semiotika - Pengantar Studi Islam (Issue January).
- Syatar, A., Imran, M., Ilham, M., & Nurdin Marjuni, K. (2023). Examining Call for the Dissolution of Indonesian Ulema Council: Siyāsah Syar'īyyah Perspective. *Jurnal Ilmiah Syariah*, 22(2), 199–211. <https://doi.org/10.31958/juris.v22i2.6678>
- Veldhoven, Z. Van, & Vanthienen, J. (2022). La transformación digital como una perspectiva impulsada por la interacción entre empresa, sociedad y tecnología. *Electronic Markets*, 32(2), 629–644.
- Wafa, Z. (2021). Metode Instinbat ( Penetapan ) Hukum Melalui Maqasid Al-Shari ' Ah. *Ad-Da'wah*, 19(02), 9–22.
- Zulfa, N., Millah, N. N., Nuratin, N., & Novitasari, K. (2023). Konsep Maqashid Syariah Dalam Praktik Strategi Pemasaran Tiktok Dengan Landasan Etika Bisnis Islam. *AB-JOIEC: Al-Bahjah Journal of Islamic Economics*, 1(2), 79–94. <https://doi.org/10.61553/abjoiec.v1i2.64>



# Copyright Challenges and Opportunities for the Integration of Generative Artificial Intelligence (GenAI) in Indonesian Higher Education Learning

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**Abstract:** The use of Generative Artificial Intelligence (GenAI) in higher education in Indonesia offers great opportunities, but faces significant challenges related to copyright. The technology is capable of generating new content that supports more adaptive learning, but raises questions regarding the ownership of intellectual works, especially in the context of “fair use” and copyright protection. This research aims to examine the legal challenges in the integration of GenAI in Indonesian higher education learning as well as opportunities for its development. The method used is juridical-normative research, by analyzing secondary data from relevant regulations, books, and journals. The results show that the lack of clarity in copyright regulations in Indonesia can hinder the optimal utilization of GenAI. Nevertheless, this technology offers significant potential to improve the personalization of learning and the quality of higher education in Indonesia, provided that comprehensive and specific regulations are developed soon.

**Keywords:** Artificial Intelligence, Copyright, Higher Education in Indonesia.

## 1. INTRODUCTION

Artificial Intelligence (AI) is a technological development that becomes a platform for humans to develop their skills and assist in doing their jobs (Prakken, 2005). One of the sectors that develop this technology is the education sector including higher education. The use of AI in higher education can help improve the quality and learning system for students. AI has several categories, one of which is Generative AI (Gen AI) (Dian Eka Chandra Wardhana et al., 2024).

Gen AI (General Artificial Intelligence) is an artificial intelligence technology that has human-like capabilities in various aspects. Generative AI, which is capable of creating new content from existing data, has become a global highlight due to its potential in advancing more adaptive, personalized and interactive learning methods. Across countries, the number of users of AI-based learning technologies continues to increase significantly. By 2022, it is estimated that 47% of higher education institutions worldwide will have started integrating AI into the learning process, with the figure projected to increase to more than 70% by 2025. (Quintais, n.d.). In Indonesia, although AI adoption is still in its early stages, several major universities have started using AI in various forms, from the creation of learning materials to academic evaluation.

Responding to this development, the Ministry of Education, Culture, Research and Technology (Kemendikbudristek) Republic of Indonesia has recently issued a regulation that allows the use of AI technology, in particular GenAI, for learning media in higher education in the form of guidelines. This regulation aims to encourage innovation in education and ensure that the latest technology can be used to improve the quality of teaching and learning. However, it also emphasizes the importance of complying with copyright regulations and academic ethics in the use of this technology. The use of GenAI that can produce new products, such as texts, images, and learning materials, raises questions related to copyright ownership. (Surden, n.d.). The copyright protection mechanism in Indonesia is regulated in Copyright Law No. 28 of 2014 which specifically regulates the protection of intellectual works in the midst of current technological changes (UUHC, 2014). Unfortunately, there are still challenges in the application of AI due to the limitations of regulations on the utilization of copyrighted works for educational purposes, especially in the context of “fair use” which still requires clear interpretation in academic circles.

In fact, there is confusion among educators and learning media developers regarding how copyright applies to AI-generated content. Previous studies have suggested that the use of AI for the creation of learning materials poses a risk of copyright infringement if the resulting work is an adaptation or reproduction of copyrighted material without proper authorization (Rissland et al., 2003). In Indonesia, this challenge is compounded by the lack of knowledge of lecturers and institutions regarding intellectual property issues in educational technology. Many of them do not fully understand how GenAI works, which can easily access, modify and replicate materials from copyrighted online sources.

Despite the challenges, great opportunities are unlocked by the use of AI in higher education (Kemendikbudristek, n.d.). Through the guidance of the right regulations, GenAI can support the development of more inclusive and affordable learning materials. This technology can create adaptive content tailored to the needs and learning abilities of each student, which has been difficult to do with conventional methods. This approach is in line with Merdeka Belajar policy promoted by the Ministry of Education and Culture, where freedom in teaching methods and access to wider learning resources are prioritized.

In order to maximize this opportunity, clearer and more comprehensive regulations related to copyright need to be developed, both at the national level and at the level of educational institutions. This research seeks to fulfill this gap by exploring further the legal challenges and opportunities, and providing policy recommendations for the development and

implementation of AI in Indonesia's higher education environment, while respecting applicable copyright principles.

## **2. LITERATURE REVIEW**

### **A. Previous Research**

#### **1. Generative AI, Copyright and the AI Act**

The Artificial Intelligence Act (AI Act) and copyright law in the European Union regulate the interaction between the development of generative AI models, particularly in terms of text and data mining (TDM) and AI model training. TDM is considered a critical component of AI training and falls under copyright protection, which requires permission from the rights holder or the application of copyright exceptions. It also requires transparency in data usage, including disclosure of the source of data used to train AI models. Challenges arise in protecting copyright at the input, model, and output stages of AI, as well as the possible encouragement for AI model providers to enter into licensing deals with rights aggregators. Nonetheless, this regulation is still inadequate in ensuring fair remuneration for creators (Quintais, n.d.)

#### **2. ChatGPT Usage among Students and Lecturers of Indonesian Higher Education Institutions**

The use of ChatGPT among students and lecturers in higher education in Indonesia shows that lecturers are more informed and utilize it than students. The level of awareness of the existence ChatGPT is very high among academics, although many consider its use to be incompatible with academic ethics. Based on a survey of 430 respondents, no significant effect of age on ChatGPT adoption among lecturers was found. In addition, there are no standardized ethical guidelines regarding the use of ChatGPT in educational settings, despite its widespread use and debate in academic contexts (Niyu et al., 2024).

#### **3. Copyright Protection in Generative AI: A Technical Perspective**

The advancement of generative AI models, such as for text, images, and audio, has raised huge concerns regarding copyright. These models require enormous amounts of data for training, which is often used without the explicit permission of the owner, thus potentially infringing copyright. Several technical methods have been developed to protect copyright, including the use of watermarks, unrecognizable examples, machine learning that allows data to be forgotten, and removal of duplicate data to protect data. In addition, the method of watermarking the model is also applied

to prevent model theft. However, despite these advances in protection, there are still limitations that need to be addressed, so further research is needed to ensure effective copyright protection in the use of generative AI (Ren et al., 2024).

## **B. Copyright**

Copyright theory is a legal principle that grants protection to creators of original works that have been created, including works of literature, art, music, and technology, and grants exclusive rights to reproduce, distribute, and display such works (Ujang Badru Jaman et al., 2021). Copyright serves to encourage creativity and innovation by providing incentives to creators, so that they can gain recognition and economic benefits from their works (Ujang Badru Jaman et al., 2021). Similarly, the theory also includes the concept of “fair use”, which allows limited use of protected works without the owner's permission, especially for educational, research, or critical purposes. However, the application of copyright theory in the context of new technologies, such as generative AI, creates its own challenges regarding how to determine ownership and legitimate use of the generated content.

## **C. Academic Autonomy**

Academic autonomy is the principle that gives educational institutions, especially higher education institutions, the freedom to set curriculum, teaching methods, and research independently without external interference, either from the government or outside parties (Soetjipto et al., n.d.). This theory emphasizes the importance of intellectual freedom and creativity in creating an innovative and collaborative academic environment. In the context of technology utilization, such as Artificial Intelligence in learning, academic autonomy allows institutions to experiment with new teaching methods and technology integration in the curriculum (Soetjipto et al., n.d.). Nonetheless, this autonomy must be aligned with regulatory compliance, including copyright protection, so that use of technology does not compromise the rights of creators and remains compliant with applicable laws, so as to create a fair and sustainable educational environment.

## **3. RESEARCH METHOD**

This type of research is juridical-normative. Juridical normative is research conducted by examining library materials or secondary materials (Putranti, 2018). This research will examine the problem of the unclear restrictions on the use of AI, especially in relation to learning media. The Data Analysis Method will be carried out by collecting secondary data

through a review of library materials which include legal materials, both primary, namely Law Number 28 of 2014 concerning Copyright and Guidelines for the Use of Generative Artificial Intelligence (Gen Ai) in Learning media in Higher Education. Secondary legal materials are legal materials that explain primary legal materials, namely books, journals, research reports, magazines, articles, and documents related to the research theme. Tertiary Legal Materials, are legal materials that complement primary and secondary legal materials, namely: Legal Dictionary, Indonesian Dictionary, English Dictionary. The secondary data collection method is done by document study. After the data is collected, the data analysis used is qualitative data analysis. Qualitative data analysis is applied to find and describe problems in the field or structures and processes in routines and practices. The ultimate goal is to generalize by comparing various materials or various texts or several cases (Putranti & Putri, 2024).

#### **4. RESULT AND DISCUSSION**

##### **Legal Challenges in Using Generative AI for Learning Materials**

The use of Generative Artificial Intelligence (GenAI) in higher education presents significant challenges related to the copyright legal framework in Indonesia. This challenge lies in the vagueness of the legal rules in dealing with aspects of creation and protection of creators' rights in an era of evolving technology. The guidebook on the use of GenAI published by the Directorate General of Higher Education, Research and Technology, Ministry of Education, Culture, Research and Technology of the Republic of Indonesia, provides important guidelines, but there are still critical issues that require in-depth study, especially regarding copyright.

One of the most obvious issues is how GenAI processes and produces content based on copyrighted works. For instance, when students use previously published papers or theses to train AI models, there is the potential that the copyright owners of these works could be infringed. Student works, academic books, scientific journals, and other materials fed into AI systems for use in learning also require legal protection. (Conrad & Zeleznikow, 2015). Unfortunately, in Indonesia, the restrictions related to the use of copyrighted works by AI are still unclear, especially in assessing whether such use violates copyright or not.

The Ministry of Education and Culture's guidebook on the use of Generative AI (GenAI) also mentioned the ethical regulation aspect, where it is important for higher education institutions to ensure that AI is used responsibly. This includes efforts to avoid unconscious copyright infringement in AI-based learning processes. In this discussion, the relevant rule of law becomes an important basis, while in the Indonesian legal framework, specifically under

the Copyright Law (UUHC) No. 28 of 2014, there is no specific provision that clearly regulates how works used by AI can be protected.

UUHC certainly regulates the rights of creators to protect their creations from unauthorized use, but the phrase “reasonable interests of the creator/copyright holder” found in Article 43 of the UUHC is still controversial (UUHC, 2014). The definition of “reasonable interests” has not been clarified, leading to uncertainty in law enforcement when it involves technologies such as AI that tend to utilize existing data or works. For example, whether a work used by AI to generate new content is considered an infringement if there is no permission from the copyright holder, or vice versa, if such use is considered a fair use for educational purposes.

In addition, Article 43 of the UUHC states that the use of protected works for educational purposes can be done without the permission of the copyright holder, provided that it complies with applicable standards (UUHC, 2014). However, the standardization of the “substantial part” of a work that is permitted to be used without infringing copyright has not clearly been spelled out in Indonesian law. This has resulted in a gray area in the application of copyright rules, particularly in relation to GenAI-based learning materials. How much material can be used by AI to generate new content, and whether the output of the AI process itself is considered copyright infringement, is still an outstanding issue.

A number of developed countries have begun to develop more detailed regulations regarding the use of AI and copyright. For example, in the United States, the concept of “fair use” is the basis for consideration in the use of copyrighted material for educational, research, and critical purposes. (Surden, n.d.). While this concept has not been explicitly adopted in Indonesia's legal system, further study is needed to understand how similar principles can be applied in the context of higher education learning.

The Ministry of Education and Culture's guidelines emphasize the need for higher education institutions to develop internal policies that ensure the use of AI, including GenAI, is conducted ethically and in accordance with applicable copyright rules. This policy could include limiting the use of AI to only materials that have obtained permission from the copyright owner, or in other cases, ensuring that the materials used fall into the fair use category stipulated in the UUHC. However, without a clear standardization of the substantial part of the work that can be freely used by AI, it is difficult for universities to truly ensure that the use of AI is free from legal violations.

Another issue that arises is whether works produced by AI itself deserve copyright protection. According to UUHC, copyright is only granted to creators who are individuals or groups that create a work with their intellectual abilities. In this case, the works produced by AI, which process data and information from various sources, including copyrighted works, raises the question: first, who owns the rights to the work? and second, whether the work is considered a work worthy of copyright protection or vice versa? Since AI creates the work, copyright cannot be assigned to anyone else.

At the international level, organizations such as the World Intellectual Property Organization (WIPO) are exploring new approaches to protecting AI-generated works. (Prakken, 2005). Meanwhile, in Indonesia, the rules related to the copyright of AI-based works have not been seriously considered in the existing regulations. This emphasizes the need to formulate clearer policies related to the use of AI in higher education and the protection of copyright of works produced by such technology.

### **Opportunities in Using Generative AI to Support Learning**

The use of Generative AI (GenAI) in the context of learning in Indonesian higher education provides various significant opportunities that have the potential to support the development of the Indonesian education system in the digital era. While the legal challenges as discussed earlier indicate weaknesses, there are also opportunities offered by GenAI, both in terms of teaching effectiveness and improved learning outcomes.

One of the main opportunities resulting from the implementation of GenAI is increased personalization in learning. GenAI allows teachers to create learning materials that are more adaptive and tailored to student needs. Based on existing reports, the use of AI in education can support the creation of a learning system that is more responsive to individual needs (Harahap et al., n.d.). For instance, AI can assist in assessing a student's level of understanding in real-time and suggest additional materials or exercises that suit the individual's shortcomings. It has the ability to analyze student data in depth and offer a more targeted approach to learning.

In addition, GenAI is also able to accelerate the process of developing teaching materials. Lecturers or teachers can utilize this technology to produce educational content relevant to curriculum needs in a short time. In the meaning of higher education, innovation and relevance are prioritized, AI can play a key role in developing teaching materials that are up to date and in accordance with global trends (Marlin et al., n.d.). For example, AI can be used to create learning modules based on the latest data, enhance the quality of teaching, and enable the preparation of materials based on the latest research in a particular field.

In terms of efficiency, the application of AI in the college administration process is no less important. GenAI can support operational efficiency in terms of student assignment grading, especially in large numbers. In many cases, AI can help grade essay answers, provide automated feedback, and even detect plagiarism more accurately (Marlin et al., n.d.). The fact that GenAI can handle these tasks faster than humans allows educators to focus more on strategic activities such as academic advising.

Another opportunity GenAI offers in higher education is its ability to expand access to quality education, especially in remote or underdeveloped areas. In Indonesia, where access to adequate educational resources is not always evenly distributed, AI can be a solution to bridge this gap. Through AI, students in remote areas can get access to the same high-quality learning materials as students in big cities. In addition, AI also has the potential to reduce reliance on physical infrastructure such as laboratories, by providing AI-based simulations for scientific or technical experiments.

When it comes to ethics, although GenAI offers many benefits in education, its use must still be supervised so as not to violate academic values and integrity. One ethical issue that arises is the potential use of AI to dishonestly complete academic assignments, where students may rely on AI to create assignments without sufficient understanding. Therefore, it is important for educational institutions to not only provide guidance on the use of GenAI, but also instill strong academic ethics in students.

Several higher education institutions in Indonesia have started to implement internal policies to regulate the use of GenAI in learning. Based on information from various sources, several major universities in Indonesia, such as Gadjah Mada University (UGM) and Bandung Institute of Technology (ITB), have developed stricter ethical guidelines regarding the use of AI (Attar, 2024). These guidelines emphasize the importance of academic integrity and suggest using AI as a tool rather than a substitute for students' creativity and critical thinking skills.

In the future, regulatory challenges related to the use of AI in learning media in higher education may continue to arise along with the rapid development of AI technology. The Indonesian government, through the Directorate General of Higher Education, Research and Technology, needs to urgently update the regulatory framework to include clearer guidelines regarding the use of GenAI in learning. This includes copyright protection, data privacy, as well as the development of guidelines that ensure that this technology is used ethically and responsibly.



In addition, GenAI also provides opportunities to enrich research and innovation in higher education. The technology is capable of accelerating data analysis on a large scale, which is particularly useful for scientific research. In some studies, AI has been used to analyze genomic data, evaluate clinical trial results, and forecast economic trends (Tittahira, 2025). By expanding the adoption of AI in research activities in higher education, Indonesia has the potential to improve the quality and productivity of its academic research.

### **Recommendations for the Development of Copyright Policy in Higher Education**

Based on the challenges and opportunities that have been identified regarding the use of Generative AI (GenAI) in learning in Indonesian higher education, the government, especially the Ministry of Education, Culture, Research, and Technology, needs to formulate a holistic and comprehensive policy. The policy should cover legal, technical, and ethical aspects so that GenAI can be maximally utilized to improve the quality of higher education without violating copyright or ignoring academic ethics.

More specific regulations related to copyright protection in the context of AI must be drafted immediately. The government needs to clarify the definition of terms such as “reasonable interest” and “substantial part” in the Copyright Act so that the utilization of copyrighted works by AI does not infringe on the rights of creators. This policy can take the form of amendments to the Copyright Law or derivative regulations that clarify the limits of the use of intellectual works by AI systems, especially in the context of education. In this case, the regulations should ensure that copyrighted content, such as journals, textbooks, or other scholarly works used by AI to generate new materials, remains protected according to the rights of the creator (Amodei et al., 2016).

Policies related to academic integrity in the use of GenAI also need to be emphasized. GenAI should be used as a tool, not a substitute in the academic process. Therefore, the Ministry needs to formulate specific guidelines for universities that set limits on the use of AI by students and lecturers, especially in the creation of assignments, scientific papers, or learning materials. This policy should be accompanied by clear monitoring and enforcement mechanisms to prevent potential violations, such as plagiarism or misuse of technology.

The government then needs to encourage the responsible integration of AI in the college curriculum. By introducing courses that focus on ethics and technology law, students can be equipped with an in-depth understanding of the use of AI and its impact on copyright and academic integrity. This will create early awareness on how AI can be used ethically and in accordance with applicable regulations.

From the technical side, policies must ensure that infrastructure that supports the use of AI in higher education is equally available. The government needs to ensure that AI technology, especially GenAI, can be accessed by all universities in Indonesia, including in areas that may lack access to advanced technology. This equitable infrastructure development will ensure that all students and lecturers can benefit from GenAI, without a technology gap between universities in big cities and remote areas.

The government also needs to encourage collaboration between universities, technology industries, and research institutes in the development of context-appropriate AI in Indonesia. This collaboration can help universities adopt AI in an appropriate manner, including to produce learning materials that are relevant, effective, and in line with the needs of the national curriculum. By involving various parties, AI innovation in education will be more targeted and relevant to local challenges, without ignoring global standards.

Data collection and processing policies should also be clearly regulated. AI requires large amounts of data to function optimally, but the collection of student data must be protected in accordance with the principles of personal data protection. The Ministry needs to formulate and strengthen policies such as Law number 27 of 2022 on personal data protection so that there are no privacy violations in the use of GenAI, including ensuring that data collected for the benefit of AI is used safely and in accordance with applicable data protection regulations (UUPDP, 2022).

## **5. CONCLUSION**

The use of Generative AI (GenAI) in higher education learning systems in Indonesia brings legal challenges, especially related to copyright protection. The main challenge is the unclear regulations regarding the use of copyrighted works in the AI process. Copyright Law (UUHC) No. 28 of 2014 does not yet contain rules that specifically address how AI uses copyrighted content to generate new material. This creates uncertainty as to whether such use can be categorized as copyright infringement.

Legal challenges aside, there are great opportunities in the application of GenAI to improve learning personalization, accelerate the development of teaching materials, and support research and innovation in higher education. This technology enables a learning system that is more responsive to student needs, improves administrative efficiency, and expands access to quality education.

Relevant policies need to be drafted immediately by the Ministry of Education, Culture, Research and Technology to ensure that the use of GenAI is done ethically and does not violate copyright. This includes amendments to the UUHC to clarify the use of copyrighted works by AI, the development of academic integrity guidelines, as well as technical policies that support AI infrastructure across universities in Indonesia.

## LIMITATION

This research faces several limitations that need to be considered. One of the most significant limitations is the lack of availability of secondary data specific to copyright regulations and GenAI usage policies in the Indonesian educational context. As a result, this research may not be able to offer a comprehensive analysis of implementation practices that comply with the law, as the available references are limited to general or international studies.

Another limitation is the gap between copyright law theory and its application in the field, especially in the case of GenAI usage in higher education where there is no clear legal framework. This can lead to a lack of precision in attributing practical legal implications. In addition, the limited time for conducting the research also affected the depth of exploration of the latest developments in GenAI technology.

## REFERENCE

- Amodei, D., Olah, C., Steinhardt, J., Christiano, P., Schulman, J., & Mané, D. (2016). Concrete Problems in AI Safety (No. arXiv:1606.06565). arXiv. <https://doi.org/10.48550/arXiv.1606.06565>
- Buku-Panduan-\_-Penggunaan-Generative-AI-pada-Pembelajaran-di-Perguruan-Tinggi-cetak. (n.d.).
- Conrad, J. G., & Zeleznikow, J. (2015). The role of evaluation in AI and law: An examination of its different forms in the AI and law journal. *Proceedings of the 15th International Conference on Artificial Intelligence and Law*, 181–186. <https://doi.org/10.1145/2746090.2746116>
- Dian Eka Chandra Wardhana, Sarwit Sarwono, Didi Yulistio, Agung Subakti, & Jamaludin Jamaludin. (2024). Implementasi AI Dalam Proses Pembelajaran di Perguruan Tinggi: Studi Kasus Penggunaan AI Di Prodi Ilmu Fisika. *FUNDAMENTUM: Jurnal Pengabdian Multidisiplin*, 2(2), 24–34. <https://doi.org/10.62383/fundamentum.v2i2.124>
- Harahap, M. A. K., Haryanto, H., & Lestari, V. L. (n.d.). Pemanfaatan Teknologi Artificial Intelligences (AI) Bagi Dosen Dalam Menghadapi Tantangan Perguruan Tinggi Pada Era Disrupsi.

- Marlin, K., Tantrisna, E., Mardikawati, B., Anggraini, R., Susilawati, E., & Batusangkar, U. M. Y. (n.d.). Manfaat dan Tantangan Penggunaan ArtificialIntelligences(AI) Chat GPT Terhadap Proses Pendidikan Etika dan Kompetensi Mahasiswa Di Perguruan Tinggi.
- Niyu, Desideria Dwihadiah, Azalia Gerungan, & Herman Purba. (2024). Penggunaan ChatGPT di Kalangan Mahasiswa dan Dosen Perguruan Tinggi Indonesia. *CoverAge: Journal of Strategic Communication*, 14(2), 130–145. <https://doi.org/10.35814/coverage.v14i2.6058>
- Prakken, H. (2005). AI & Law, Logic and Argument Schemes. *Argumentation*, 19(3), 303–320. <https://doi.org/10.1007/s10503-005-4418-7>
- Putranti, D. (2018). Copyright Protection in Indonesia: Study of Amendment of Act Number 28 of 2014 on Copyright. *Melayunesia Law*, 2(1), 25. <https://doi.org/10.30652/ml.v2i1.5401>
- Putranti, D., & Putri, U. T. (2024). Enforcement of Copyright Law on Non-Fungible Token (NFT) Through Smart Contracts. *Kosmik Hukum*, 24(1), 40. <https://doi.org/10.30595/kosmikhukum.v24i1.18476>
- Quintais, J. P. (n.d.). Generative AI, Copyright and the AI Act.
- Ren, J., Xu, H., He, P., Cui, Y., Zeng, S., Zhang, J., Wen, H., Ding, J., Huang, P., Lyu, L., Liu, H., Chang, Y., & Tang, J. (2024). Copyright Protection in Generative AI: A Technical Perspective (No. arXiv:2402.02333). arXiv. <https://doi.org/10.48550/arXiv.2402.02333>
- Rissland, E. L., Ashley, K. D., & Loui, R. P. (2003). AI and Law: A fruitful synergy. *Artificial Intelligence*, 150(1–2), 1–15. [https://doi.org/10.1016/S0004-3702\(03\)00122-X](https://doi.org/10.1016/S0004-3702(03)00122-X)
- Soetjipto, A., Seda, F. E., Noor, I. R., Wardani, S. B. E., & Soebagjo, N. (n.d.). AUTONOMY AND GOVERNANCE OF STATE UNIVERSITIES.
- Surden, H. (n.d.). Artificial Intelligence and Law: An Overview. *Artificial Intelligence and Law*, 35.
- Tittahira, A. (2025). DAMPAK KECERDASAN BUATAN PADA MAHASISWA:ANALISIS PENGGUNAAN AI DALAM PEMBELAJARAN DI PERGURUAN TINGGI.
- Ujang Badru Jaman, Galuh Ratna Putri, & Tiara Azzahra Anzani. (2021). Urgensi Perlindungan Hukum Terhadap Hak Cipta Karya Digital. *Jurnal Rechten : Riset Hukum dan Hak Asasi Manusia*, 3(1), 9–17. <https://doi.org/10.52005/rechten.v3i1.22>
- UUHC. (2014). UNDANG-UNDANG NOMOR 28 TAHUN 2014 TENTANG HAK CIPTA.
- UUPDP. (2022). UNDANG-UNDANG NOMOR 27 TAHUN 2022 TENTANG PERLINDUNGAN DATA PRIBADI.
- Attar, F. K. (2024, February 24). Daftar 6 Universitas dengan Jurusan AI di Indonesia. Inilah.Com. <https://www.inilah.com/6-kampus-dengan-jurusan-ai-di-indonesia-dari-s1-sampai-s2>

## Legal Review of the Misuse of Voice Changer Technology in the Dissemination of Hoaxes and Information Manipulation in Indonesia

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**Abstract:** The spread of hoaxes through voice manipulation technology, such as voice changers, has become a significant issue in Indonesia in recent years. This technology allows perpetrators to manipulate someone's voice, which is then used to spread false information that can damage an individual's reputation, influence public opinion, and create social unrest. This study aims to analyze the legal aspects related to the misuse of voice changers in the spread of hoaxes, identify the challenges faced in law enforcement, and provide policy recommendations to improve legal protection for hoax victims. The methodology used in this research is normative legal research, with a normative approach focusing on the analysis of the Electronic Information and Transactions Law (UU ITE) and the Personal Data Protection Law (UU PDP), as well as other relevant regulations. The results show that although Indonesia has a sufficient legal framework to address hoax cases involving voice changers, law enforcement still faces challenges in terms of identifying perpetrators, proving voice manipulation, and the lack of more specific regulations. Additionally, victims have the right to legal protection, including compensation and clarification of false information. This study recommends enhancing the capacity of law enforcement, strengthening regulations, and improving digital literacy among the public to address the challenges posed by this technology.

**Keywords:** Voice Changer, Hoaxes, Legal Protection.

### 1. INTRODUCTION

The development of digital technology in recent decades has had a significant impact on various aspects of life, including communication, entertainment, and social interaction. One of the rapidly advancing technological innovations is voice-changing software, commonly known as a voice changer. A voice changer is a software or technology that allows users to modify or alter their voice, changing characteristics such as pitch, speed, and intonation and even digitally mimicking another person's voice (Hilman, 2024). Initially, this technology was widely used in the entertainment sector, such as in the production of animated films, video games, and audio production to create unique sound effects (Genelza, 2024; Miyamoto & Fukumoto, 2024). However, as access to technology and more affordable digital devices has expanded, voice-changer technology is now used by various groups, including individuals, with the intent to manipulate information or spread false content (hoaxes) more efficiently (Rifauddin & Halida, 2018).

The misuse of voice changer technology in the spread of hoaxes and manipulation of information has increasingly become a concern in Indonesia. Cases of information dissemination that lead to defamation or manipulated voices being spread through social media have raised concerns regarding the effectiveness of existing regulations in addressing this phenomenon. This technology, which was originally more widely known in the entertainment and media production sectors, is now at risk of being misused for harmful purposes, such as damaging individual reputations, spreading false propaganda, or even negatively influencing public opinion. The spread of hoaxes and manipulation of information has become a serious issue that has increasingly disturbed Indonesian society in recent years. Hoaxes, or false information intentionally created to mislead or harm certain parties, have rapidly proliferated due to the expanding access to the internet and the growing intensity of social media use. The development of digital technology, while providing many benefits, has also posed significant challenges in terms of information control (Sawitri, 2019). Information can be easily disseminated to millions of people in a matter of seconds, often without any prior verification or fact-checking (Juditha, 2018).

In Indonesia, the spread of hoaxes has become a widespread phenomenon, especially during significant events such as elections, natural disasters, or social crises (Ali, 2021; Sarjito, 2024; Ummah & Putri, 2024). Hoaxes often contain sensitive issues, such as religion, politics, race, and ethnicity, which can trigger social tensions and affect the stability of the state (Gani, 2023). In many cases, the circulating hoaxes are not merely misleading. However, they are intentionally created to achieve specific objectives, such as damaging an individual's reputation, manipulating public opinion, or even provoking unrest. This phenomenon is further exacerbated by the emergence of advanced technologies, such as voice changer technology, which allows for the manipulation of information in the form of voice that appears authentic but is, in fact, entirely fabricated. The spread of hoaxes involving voice manipulation using voice changer technology worsens the situation, as this technology enables individuals to mimic the voices of famous figures or public officials, which are then used to disseminate false information or incite fear and confusion (Schick, 2020). In this context, hoaxes are not only spread through text or images but also through voices that seemingly originate from trustworthy sources when, in fact, they are merely the result of technological fabrication (Hajli et al., 2022).

The use of voice changers in the context of spreading false information or manipulating information can occur rapidly due to the rapid advancements in internet technology and social media. Social media platforms and instant messaging applications provide a vast space for anyone to disseminate information in an easy and fast manner (Rahadi, 2017). In some cases,

the false voices generated by voice changer technology are used to create deceptive audio recordings, which are then spread through various digital channels (Khanjani et al., 2021). For example, the voice of a known individual can be manipulated to convey a message that that person never spoke. This can lead to confusion and anxiety or even create unnecessary conflicts within society. One of the most significant impacts of the spread of hoaxes and manipulation of information is the erosion of public trust in legitimate and credible sources of information (Zannettou et al., 2019). When the public can no longer distinguish between true and false information, uncertainty arises, which can affect important decisions, both in personal and social life; for example, health-related hoaxes can lead the public to make risky decisions regarding their well-being, such as rejecting vaccination or following unproven therapies.

Given the significant impact caused by the spread of hoaxes and manipulation of information, it is high time for more structured and decisive efforts to address the misuse of technology, particularly voice changer technology. In this context, legal regulation becomes crucial to provide protection for the public and ensure that technology is not misused for harmful purposes. Existing laws, such as the Electronic Information and Transactions Law (UU ITE), already provide a framework to address some of these issues, but there are still many challenges in enforcement. One of the biggest challenges is the difficulty in detecting and proving the misuse of digital technology involving voice manipulation, primarily when false audio recordings are distributed anonymously via digital platforms. Therefore, there is a need for more straightforward and more specific regulations to govern the use of technologies like voice changers in the context of digital communication.

Given the significant impact caused by the spread of hoaxes and manipulation of information, it is high time for more structured and decisive efforts to address the misuse of technology, particularly voice changer technology. In this context, legal regulation becomes crucial to provide protection for the public and ensure that technology is not misused for harmful purposes. Existing laws, such as the Electronic Information and Transactions Law (UU ITE), already provide a framework to address some of these issues, but there are still many challenges in enforcement. One of the biggest challenges is the difficulty in detecting and proving the misuse of digital technology involving voice manipulation, primarily when false audio recordings are distributed anonymously via digital platforms. Therefore, there is a need for more straightforward and more specific regulations to govern the use of technologies like voice changers in the context of digital communication. Additionally, the public's involvement in enhancing digital literacy is essential. The public needs to be engaged in efforts to recognize the signs of false information and be trained to trust and disseminate information with quick

verification (Adelia, 2023). The importance of this legal regulation also includes strengthening cooperation between legal institutions, social media platform providers, and the public to develop more effective information verification mechanisms. The government must provide support through more explicit regulations, while digital platform providers need to play an active role in detecting and removing hoax content. On the other hand, the public should also be given a deeper understanding of the dangers of hoax dissemination and the importance of critically assessing any information received.

In Indonesia, although there are several regulations governing the spread of hoaxes, such as the Electronic Information and Transactions Law (UU ITE), the existing laws need to be more specific to address cases of voice manipulation involving technologies like voice changers. UU ITE regulates the dissemination of false information that can harm others. However, there currently needs to be a regulation that specifically addresses the new challenges arising from advancements in digital voice processing technology. Therefore, it is important to identify relevant regulations and propose policies that are more adaptable to these new technologies. The objective of this research is to analyze how the misuse of voice changers contributes to the spread of hoaxes, identify existing legal regulations related to the misuse of this technology, and provide policy recommendations that the government can implement to prevent the misuse of technology in the dissemination of false information. This study aims to provide a deeper understanding of the dynamics of hoax dissemination involving voice changer technology and suggest policy measures that can strengthen legal frameworks in this context.

## **2. METHODS**

In this study, the research method used is normative legal research, which focuses on the analysis of applicable legal norms and their application in the context of the misuse of voice changers in the spread of hoaxes and information manipulation in Indonesia. Normative legal research aims to analyze and understand existing legal regulations and how these regulations are applied in addressing legal issues arising from the use of digital technologies, such as voice changer technology (Benuf & Azhar, 2020). The approach used is the statute approach and the case approach. The legal materials used include primary legal sources such as Law of the Republic of Indonesia No. 1 of 2024 on the Second Amendment to Law No. 11 of 2008 on Information and Electronic Transactions, Law No. 27 of 2022 on Personal Data Protection, Law No. 8 of 1999 on Consumer Protection, the Criminal Code (KUHP), the Criminal Procedure Code (KUHP), and the Civil Code (KUHPerdata), as well as secondary legal materials consisting of legal doctrines, scholarly journals, and legal literature that provide more



profound understanding of the application of law concerning the misuse of voice changer technology. The analytical technique used in this research is qualitative analysis with a descriptive-analytical method. The researcher will analyze the content of relevant legislation and identify articles that can be applied (Tan, 2021), in cases of the misuse of voice changers to spread hoaxes, with the aim of providing a deeper understanding of how Indonesian law addresses the issues arising from the misuse of this technology.

### **3. RESULTS AND DISCUSSIONS**

#### **Legal Regulations in Indonesia regarding Misuse of Digital Technology**

The Electronic Information and Transactions Law (UU ITE) serves as the legal framework used in Indonesia to address various issues related to the dissemination of information and electronic transactions, including the spread of hoaxes through digital platforms. The Electronic Information and Transactions Law (UU ITE) in Indonesia underwent significant changes with the enactment of Law No. 19 of 2016, which revised the previous UU ITE (Law No. 11 of 2008). This revision better accommodates the development of technology and the increasingly complex trends in cybercrime, including issues related to the spread of hoaxes and manipulation of information using digital technologies such as voice changers. In 2024, the Indonesian government made further updates to the UU ITE (see: Law No. 1 of 2024), aimed at enhancing the effectiveness of regulation in the digital era. Although no major changes have been made to the provisions specifically addressing hoax dissemination through voice manipulation (voice changers), the UU ITE 2024 focuses on strengthening provisions related to cybercrimes, the spread of false information, and the more stringent enforcement of laws against the misuse of technology. Below are some key aspects relevant to the misuse of voice changers in the spread of hoaxes:

#### **1. Emphasis on Criminal Offenses Related to the Dissemination of False Information and Hoaxes**

The amendments to the provisions in UU ITE 2024 further emphasize the importance of regulating the dissemination of false information that harms the public. The spread of hoaxes using technologies such as voice changers to manipulate the voices of public figures or government officials can now be subject to stricter criminal penalties. In this regard, the relevant provisions are found in Article 28 Paragraph (1) of UU ITE, which states: "Any person who deliberately distributes and/or transmits electronic information and/or electronic documents containing false or misleading information that causes material loss to consumers in electronic transactions." Additionally, Article 28 Paragraph (1) of UU ITE

also stipulates: "Any person who deliberately disseminates electronic information and/or electronic documents known to contain false information that causes public unrest."

This article explains that the misuse of voice changers to create false voices that spread misleading or false news can lead to confusion or unrest in society. Therefore, the penalties provided in this article are increasingly relevant in the context of using voice changers to disseminate false information.

## 2. Strengthening Sanctions for Cybercrimes

UU ITE 2024 emphasizes the strengthening of sanctions for criminal offenses related to cybercrimes. This is highly relevant to the spread of hoaxes through voice manipulation technology, which is one of the rapidly growing forms of cybercrime. In this regard, the relevant provisions are found in Article 45A Paragraph (1) of UU ITE, which states: "Any person who deliberately distributes and/or transmits electronic information and/or electronic documents containing false or misleading information that causes material loss to consumers in electronic transactions as referred to in Article 28 Paragraph (1) shall be punished with imprisonment for a maximum of 6 (six) years and/or a fine of up to Rp1,000,000,000.00 (one billion rupiahs)." Additionally, Article 45A Paragraph (3) of UU ITE stipulates: "Any person who deliberately disseminates electronic information and/or electronic documents known to contain false information that causes public unrest as referred to in Article 28 Paragraph (3) shall be punished with imprisonment for a maximum of 6 (six) years and/or a fine of up to Rp1,000,000,000.00 (one billion rupiahs)."

This article expands the definition of cybercrimes, including the use of voice manipulation technology to deceive or harm individuals or specific groups. In this case, the use of voice changers to create false voices and then spread them over the internet can be considered an act that harms others.

In addition to the regulation of the dissemination of information and electronic transactions, consumer protection is also an aspect affected by the development of digital technology, which facilitates transactions, communication, and the spread of information (Dewatana, 2021). However, this advancement also presents new challenges, one of which is the spread of manipulated information through advanced technologies, such as voice changers. The misuse of this technology can threaten consumers' rights, manipulate their perceptions, and harm consumers both materially and non-materially. Therefore, regulations related to the protection of consumers from manipulated information and the misuse of technology are of utmost importance (Rusdi, 2023).

In this context, the Consumer Protection Law in Indonesia plays a vital role in safeguarding consumers from the impact of the misuse of digital technology, particularly in terms of information manipulation. In Indonesia, consumer protection is regulated under Law No. 8 of 1999 on Consumer Protection (Consumer Protection Law). This law aims to protect consumers from all forms of abuse committed by business actors, whether related to products or services provided. Several key principles in the Consumer Protection Law that are relevant to the regulation of information manipulation include:

1. Right to Accurate Information

One of the consumer rights regulated in the Consumer Protection Law is the right to receive accurate, clear, and honest information about the goods and/or services offered. When the information received by consumers is manipulated (for example, through false voices created by a voice changer), consumers are unable to make decisions based on accurate information. This law grants consumers the right to be protected from fraudulent practices or information manipulation that harms them. This aligns with what is stated in Article 4 Paragraph (c) of the Consumer Protection Law, which states that consumers have the right to receive accurate, clear, and honest information about the conditions and guarantees of goods and/or services. If consumers receive false or misleading information generated through voice manipulation (voice changer), their right to accurate information has been violated.

2. Prohibition of Fraudulent Practices and Misuse of Information

In cases of misuse of technology to alter information or voices, business actors or individuals who utilize such technology to manipulate consumers may be subject to sanctions under the provisions of the Consumer Protection Law. This is in line with what is stated in Article 8 Paragraph (1) Letter (j), which clarifies that business actors are prohibited from producing and/or selling goods and/or services that do not include information and/or instructions for the use of goods in Indonesian, as required by applicable regulations. The dissemination of false information using a voice changer that mimics the voice of a public official or a prominent figure, which is then used to spread hoaxes, can be categorized as a violation of consumers' rights, as the information received by consumers is false and can mislead them.

### **Misuse of Voice Changer in the Spread of Hoaxes and Information Manipulation**

In recent years, Indonesia has faced significant challenges related to the spread of hoaxes and manipulation of information through digital technology. One of the technologies that has increasingly been misused for this purpose is the voice changer, a device used to modify or

mimic someone's voice in a highly convincing manner. This technology allows individuals or groups to create false voice recordings, which are then used to disseminate false or misleading information, whether for political, social, or economic purposes. In the past three years, the development of deepfake technology and voice changers has created new challenges in the realm of information (Juditha, 2018). The spread of hoaxes through voice manipulation using this technology not only adds complexity to efforts to combat hoaxes but also intensifies the severity of the resulting impacts. Several significant cases that can serve as examples in this study include:

#### 1. Hoax Cases Related to Elections and Politics

During the 2024 Presidential Election period in Indonesia, several hoaxes emerged that used voice changers to create fake voices imitating prominent political figures. One well-known case involved the dissemination of a fake voice recording that mimicked a government official's voice, containing instructions to influence voters or incite conflict between political groups. Although many of these voice recordings could be identified as fake by experts, a large portion of the public was unable to distinguish them and believed them to be legitimate information.

For instance, a recording claimed to be the voice of the 7th President of Indonesia, Joko Widodo (Jokowi), instructing the replacement of Ahmad Luthfi by Kaesang Pangarep to lead Central Java, circulated on social media. The voice recording was shared by a Facebook account on Monday, December 2, 2024. In the recording, Jokowi was claimed to have instructed Ahmad Luthfi to join President Prabowo Subianto's Cabinet after being elected as the Governor of Central Java, and Kaesang would replace Luthfi in leading Central Java (Fakta, 2024c). Another example is a video recording of Prabowo Subianto posted on an Instagram account on February 16, 2024, where his voice was modified, narrating that Prabowo Subianto was promoting a watch after winning the quick count of the Presidential Election votes (Fakta, 2024d). The most recent case involved a video recording featuring a modified voice of Rano Karno on TikTok, dated October 16, 2024, claiming that he would distribute Rp 50 million to anyone who supported him in the Jakarta Regional Election (Fakta, 2024b).

#### 2. Hoax Cases in the Social Context

In addition to politics, the misuse of voice changers also occurs in the social context, where fake voices are used to create tension or unrest among the public. One such phenomenon is the circulation of a video recording of Prabowo Subianto, where the voice in the video was modified after a presidential candidate debate, containing a conversation suggesting

that Indonesian leaders should not be clean and strong so that the Indonesian people remain ignorant (JACX, 2024). Another example is a video posted on social media claiming that celebrity Raffi Ahmad was distributing social assistance (bansos) through a gambling site with his voice altered (Fakta, 2024a). Lastly, a short video surfaced on Facebook, modifying the voice of the Head of the Indonesian Migrant Worker Protection Agency (BP2MI), Benny Rhamdani, claiming that he was assisting worth Rp 1.5 billion Indonesian Migrant Workers (PMI) (News, 2024).

Based on the cases outlined above, the spread of hoaxes using voice changers can lead to significant impacts in the social, political, and economic spheres. The dissemination of hoaxes through voice changers can cause widespread social distrust, especially when the public begins to doubt the authenticity of information, whether from official or private sources. This can lead to the breakdown of social relationships and increased polarization. Society has become more challenged to distinguish between fact and fiction, thereby increasing the tendency to believe unverified news (Amalliah, 2018). Another social impact is the social tension caused by hoaxes that damage the reputation of individuals or specific groups. For example, a fake voice spreading lies about a public figure or celebrity can quickly ruin their reputation. When the public feels betrayed or deceived by the information they receive, it can trigger mass outrage and tensions at both local and national levels.

The political impact of hoaxes spread using voice changers is particularly significant, especially in the context of elections or politically tense periods. The manipulation of information for political purposes can incite conflict between groups, create deeper social divisions, and undermine the political stability of the country. Hoaxes targeting the credibility of public officials or political candidates, or those attempting to divert public attention from important issues, can lower political participation and even alter election results. The spread of hoaxes during elections using voice changers can reduce public trust in the integrity of the electoral system, worsen political polarization, and lead to voter confusion, which will affect their decision-making based on false information (Putra & Patra, 2023).

In the economic sector, hoaxes disseminated through voice manipulation using voice changers can cause significant financial losses. For instance, fraud involving the manipulation of a bank official's or a large company's voice can result in material losses for the companies and individuals involved. Additionally, companies involved in such hoaxes may experience long-term reputational damage, which can impact consumer trust and decrease their market value. On the other hand, the digital economy sector is also negatively affected. Hoaxes spread through digital platforms can impact advertising revenue and undermine trust in digital

platforms, which in turn disrupts the growth of the digital economy in Indonesia (Sudibyo, 2019). The spread of false information through voice manipulation can also damage the online trading ecosystem, which is rapidly growing in Indonesia.

### **Analysis of Law Enforcement on the Misuse of Voice Changers, Legal Protection for Victims, and the Challenges Faced**

The misuse of voice changers for the spread of hoaxes and manipulation of information poses significant legal challenges, given the impact it can have on the integrity of information circulating in society. In this context, Indonesia has regulations that can be used to address the misuse of this technology, particularly within the framework of the Electronic Information and Transactions Law (UU ITE) and the Criminal Code (KUHP). Voice changers, as technology that allows for the alteration of voices to resemble the original voice of an individual closely, can be used to disseminate false information or deceive the public in a highly effective manner, especially in the context of spreading hoaxes.

Within the framework of Indonesian law, several provisions in the Electronic Information and Transactions Law (UU ITE) can be used to address the misuse of this technology. For example, Article 45A Paragraph (1) of UU ITE regulates the dissemination of information containing false or misleading notifications that result in material losses to consumers in electronic transactions. In this case, anyone who uses voice changers to create false voice recordings containing hoaxes or misleading information can be subject to criminal penalties. This provision imposes a maximum sentence of 6 years in prison and/or a fine of up to Rp1,000,000,000.00. Additionally, Article 45A Paragraph (3) can also be applied to cases of hoax dissemination that cause public unrest. For example, when someone uses a manipulated voice to spread false information related to government policies, health issues, or natural disasters. Perpetrators of such hoaxes can face up to 6 years in prison and a fine of Rp1 billion. Apart from the UU ITE, Article 378 of the Criminal Code (KUHP) on fraud can also serve as a legal basis. If a voice changer is used to deceive an individual or group for unlawful gain, the perpetrator can be prosecuted under criminal fraud provisions. This article imposes a maximum sentence of 4 years in prison.

The spread of hoaxes using voice changers not only harms society at large but also has damaging effects on individuals who become victims. Victims of the misuse of this technology have the right to legal protection, both through civil and criminal channels, within the framework of Indonesian law. In this regard, the rights of individuals who are victims of hoaxes include the right to protect their reputation, privacy, and emotional well-being, as well as the right to seek compensation for the damages incurred. For example, an individual whose voice

has been manipulated using a voice changer and used to spread false information may suffer reputational damage, which could result in job loss, a decrease in income, or psychological harm.

Victims have the right to seek legal protection based on the provisions in the Electronic Information and Transactions Law (UU ITE), as outlined in the formal legal substance of the UU ITE, regarding the investigation provisions found in Articles 42 to 44 of UU ITE. The victim's right to resolve the case, in addition to being regulated by UU ITE, is closely related to the Criminal Procedure Code (KUHAP) in the criminal case resolution process. The victim's right to the prosecution of the perpetrator of electronic transaction crimes under UU ITE is marked by the penal provisions found in Articles 45 to 52 of UU ITE. In relation to the victim's right to the prosecution of the perpetrator of voice changer misuse, this is provided for in Article 45 Paragraph (1) of UU ITE, which imposes penalties on the perpetrator in the form of imprisonment and fines. The victim's rights under KUHAP that are relevant to the rights of victims in cases of voice changer misuse are as follows:

1. The Right to File a Report (Article 108 Paragraph (1) of the Criminal Procedure Code - KUHAP).
2. The Right to Supervise the Investigator and Public Prosecutor (Articles 77 and 80 of the Criminal Procedure Code - KUHAP).
3. The Right to Claim Compensation for Damages Resulting from a Criminal Act Through the Consolidation of Civil and Criminal Cases (Articles 98 to 101 of the Criminal Procedure Code - KUHAP).

On the other hand, the civil route also provides the victim with the opportunity to claim compensation for the damages incurred. Based on the Civil Code (KUHPperdata), the victim can file a lawsuit against the perpetrator of the hoax dissemination, grounding the claim on unlawful acts that have caused harm. Article 1365 of the Civil Code (KUHPperdata) states that anyone who commits an unlawful act and causes harm to others is obligated to compensate for the damage. In this case, the victim may claim compensation for both material and immaterial damages, such as reputational loss or psychological suffering caused by the hoax (Kamagi, 2018).

Furthermore, victims of hoaxes related to voice manipulation also have the right to protection of their privacy and personal data. In this case, the Personal Data Protection Law (UU PDP) provides a legal basis for individuals who feel their privacy rights have been violated due to the misuse of voice changers to record or disseminate unauthorized personal information. This law provides protection for personal data and grants victims the right to

request the deletion of their data that has been misused as a result of becoming victims of voice changer abuse, which led to the disclosure of their personal information. Victims also have the right to receive legal assistance in dealing with the legal consequences of the spread of hoaxes, either through personal attorneys or institutions providing legal services. In some cases, the Ministry of Communication and Informatics (Kominfo) and other related agencies play a role in providing complaint services and protection for individuals who have become victims of harmful false information. With this mechanism, victims can assert their rights to justice and recovery after being impacted by the misuse of voice changers for information manipulation.

The technical and legal challenges in addressing hoax cases that involve voice manipulation technology, such as voice changers, are complex issues that involve difficulties in identifying perpetrators and effectively enforcing the law. One of the main challenges faced by law enforcement is the identification of the perpetrators. Voice manipulation performed using a voice changer can be very difficult to detect, especially when the voice generated closely resembles the original voice of an individual with high accuracy. This makes tracking the identity of the perpetrator more complicated, mainly if the perpetrator intentionally uses tools to conceal their identity, such as hiding their IP address or using anonymous accounts on social media or communication applications (Subki et al., 2018). Another technical difficulty lies in proving that the voice used in the hoax has indeed been manipulated. In this digital era, where audio editing technology is increasingly sophisticated, altered, or fabricated, voices can be highly realistic and convincing, thus confusing victims and the public. Evidence in the form of voice recordings presented in court may not be sufficient to prove that the voice has been manipulated unless forensic digital tools are available to accurately identify these alterations (Sayid, 2024). Therefore, law enforcement must rely on additional evidence, such as digital footprints or metadata, which can help uncover the origin of the manipulated voice recordings.

From a legal perspective, the existing regulatory framework, such as the Electronic Information and Transactions Law (UU ITE), does provide a basis to address hoax cases and information manipulation; however, the regulations often lack sufficient specificity to address the new challenges posed by voice manipulation technology. One of the obstacles is the need for more expertise and adequate tools to handle cases involving audio manipulation, which results in slower and less effective investigations. Law enforcement requires specialized training and technological tools that can assist them in verifying the accuracy of digital information, including voice recordings. In this context, the role of law enforcement is crucial, but it is also fraught with difficulties. Police and other law enforcement agencies must collaborate with information technology experts, digital forensic laboratories, and other



relevant institutions to conduct effective investigations. Although UU ITE provides a legal basis to prosecute perpetrators of hoax dissemination, effective law enforcement is still hindered by the limited technical capacity to identify voice manipulation. Therefore, law enforcement in such cases requires a multidisciplinary approach involving technology, law, and inter-agency cooperation. Additionally, another legal challenge lies in the enforcement of penalties. In Indonesia, although there are provisions in UU ITE that regulate sanctions for the spread of hoaxes and defamation, the implementation of the law often faces obstacles. Many hoax cases remain unresolved due to insufficient strong evidence and perpetrators who cannot be clearly identified or located. This is due to the prevalence of anonymous accounts used to spread hoaxes and the use of technologies such as VPNs that conceal the perpetrators' locations (Rizkiyanto et al., 2024).

#### **4. CONCLUSION**

The misuse of voice changer technology in the dissemination of hoaxes in Indonesia has resulted in various negative impacts, both socially, politically, and economically. This technology allows perpetrators to manipulate voices and spread false information that can damage individual reputations, influence public opinion, and cause unrest within society. Although Indonesia has a firm legal framework through the Electronic Information and Transactions Law (UU ITE) and the Personal Data Protection Law (UU PDP), law enforcement against the misuse of this technology still faces several challenges. The main challenges include difficulties in identifying perpetrators, limited forensic tools to detect voice manipulation, and the lack of more specific regulations to address this issue. Victims of hoaxes are entitled to legal protection, both through criminal and civil channels, including the right to compensation and clarification of false information. To address the misuse of voice changers in the spread of hoaxes, there is a need to enhance the capacity of law enforcement through training and better digital forensic tools. Legal regulations also need to be updated to address voice manipulation issues more precisely and strengthen provisions related to personal data protection. Furthermore, digital literacy among the public must be improved, focusing on how to recognize hoaxes and verify information, as well as strengthening cooperation between the government, digital platform providers, and the public to combat hoaxes. Finally, awareness of privacy and personal data rights should be promoted more actively to protect individuals from the misuse of this technology.

## REFERENCES

- Adelia, F. (2023). Strategi Penguatan Literasi Digital Berbasis Komunitas dalam Melawan Hoaks pada Media Sosial di Gerakan Masyarakat Peduli Literasi Digital Kota Bekasi. FITK UIN Syarif Hidayatullah Jakarta.
- Ali, M. (2021). Penguatan Literasi Digital dalam Mencegah Penyebaran Hoaks di Era Milenial. *Jurnal Ar-Rahmah*, 1(1), 66–79.
- Amalliah, A. (2018). Persepsi Masyarakat Terhadap Fenomena Hoax Di Media on Line Pada Era Post Truth. *Akrab Juara: Jurnal Ilmu-Ilmu Sosial*, 3(4), 1–15.
- Benuf, K., & Azhar, M. (2020). Metodologi penelitian hukum sebagai instrumen mengurai permasalahan hukum kontemporer. *Gema Keadilan*, 7(1), 20–33.
- Dewatana, H. (2021). Efektifitas Penegakan Hukum Dalam Kasus Penyebaran Informasi Bohong (Studi Kasus Di Kabupaten Grobogan). Universitas Islam Sultan Agung (Indonesia).
- Fakta, T. C. (2024a). [HOAKS] Raffi Ahmad Bagikan Bansos Melalui Situs Judi. <https://www.kompas.com/cekfakta/read/2024/07/29/100100282/-hoaks-raffi-ahmad-bagikan-bansos-melalui-situs-judi#googlevignette>
- Fakta, T. C. (2024b). [HOAKS] Rano Karno Bagikan Rp 50 Juta Lewat TikTok. <https://www.kompas.com/cekfakta/read/2024/11/06/132200582/-hoaks-rano-karno-bagikan-rp-50-juta-lewat-tiktok>
- Fakta, T. C. (2024c). Cek Fakta: Hoaks Rekaman Suara Jokowi Instruksikan Ahmad Luthfi Diganti Kaesang Pimpin Jawa Tengah. <https://www.liputan6.com/cek-fakta/read/5817351/cek-fakta-hoaks-rekaman-suara-jokowi-instruksikan-ahmad-luthfi-diganti-kaesang-pimpin-jawa-tengah?page=3>
- Fakta, T. C. (2024d). Cek Fakta: Rekaman Suara Prabowo Subianto Promosikan Jam Tangan Usai Raih Kemenangan Hasil Hitung Cepat Ini Hasil Modifikasi AI. <https://www.liputan6.com/cek-fakta/read/5531078/cek-fakta-rekaman-suara-prabowo-subianto-promosikan-jam-tangan-usai-raih-kemenangan-hasil-hitung-cepat-ini-hasil-modifikasi-ai?page=4>
- Gani, T. A. (2023). Kedaulatan Data Digital untuk Integritas Bangsa. Syiah Kuala University Press.
- Genelza, G. G. (2024). A systematic literature review on AI voice cloning generator: A game-changer or a threat? *Journal of Emerging Technologies*, 4(2), 54–61.
- Hajli, N., Saeed, U., Tajvidi, M., & Shirazi, F. (2022). Social bots and the spread of disinformation in social media: the challenges of artificial intelligence. *British Journal of Management*, 33(3), 1238–1253.

- Hilman, R. (2024). Apa Itu Voice Changer AI? Fungsi dan Manfaatnya untuk Bisnis. <https://www.pointstar.co.id/artificial-intelligence/voice-changer-ai/>
- JACX, T. (2024). Hoaks! Rekaman suara Prabowo sebut orang Indonesia harus bodoh. <https://www.antaranews.com/berita/3976509/hoaks-rekaman-suara-prabowo-sebut-orang-indonesia-harus-bodoh>
- Juditha, C. (2018). Hoax communication interactivity in social media and anticipation (Interaksi komunikasi hoax di media sosial serta antisipasinya). *Pekommas*, 3(1), 261723.
- Kamagi, G. A. (2018). Perbuatan Melawan Hukum (Onrechtmatige Daad) Menurut Pasal 1365 Kitab Undang-Undang Hukum Perdata Dan Perkembangannya. *Lex Privatum*, 6(5).
- Khanjani, Z., Watson, G., & Janeja, V. P. (2021). How deep are the fakes? focusing on audio deepfake: A survey. *ArXiv Preprint ArXiv:2111.14203*.
- Miyamoto, T., & Fukumoto, M. (2024). Making English Voices Similar to User's Voices Using Voice Changer and Interactive Differential Evolution. *International Symposium on Affective Science and Engineering ISASE2024*, 1–4.
- News, T. (2024). BP2MI: Video Bantuan Rp1,5 M dari Kepala BP2MI Benny Rhamdani untuk Pekerja Migran Indonesia Itu Hoaks. <https://www.liputan6.com/news/read/5695465/bp2mi-video-bantuan-rp15-m-dari-kepala-bp2mi-benny-rhamdani-untuk-pekerja-migran-indonesia-itu-hoaks>
- Putra, F., & Patra, H. (2023). Analisis Hoax pada Pemilu: Tinjauan dari Perspektif Pendidikan Politik. *Naradidik: Journal of Education and Pedagogy*, 2(1), 95–102.
- Rahadi, D. R. (2017). Perilaku Pengguna dan Informasi Hoax di Media Sosial. *Jurnal Manajemen Dan Kewirausahaan*, 5(1), 58–70.
- Rifauddin, M., & Halida, A. N. (2018). Waspada cybercrime dan informasi hoax pada media sosial facebook. *Khazanah Al-Hikmah: Jurnal Ilmu Perpustakaan, Informasi, Dan Kearsipan*, 6(2), 98–111.
- Rizkiyanto, E., Sudewo, F. A., & Rizkianto, K. (2024). Penegakan Hukum terhadap Tindak Pidana Cyberbullying melalui Media Elektronik. Penerbit NEM.
- Rusdi, A. M. (2023). Perlindungan Konsumen Dalam Transaksi Elektronik. *Constitutum Jurnal Ilmiah Hukum*, 2(1), 43–56.
- Sarjito, A. (2024). Hoaks, Disinformasi, dan Ketahanan Nasional: Ancaman Teknologi Informasi dalam Masyarakat Digital Indonesia. *Journal of Governance and Local Politics (JGLP)*, 6(2), 175–186.
- Sawitri, D. (2019). Revolusi Industri 4.0: Big Data Menjawab Tantangan Revolusi Industri 4.0. *Jurnal Ilmiah Maksitek*, 4(3).
- Sayid, M. R. N. (2024). HUKUM SIBER Kebangkitan Kembali Metaverse Beserta Permasalahan Hukumnya.

- Schick, N. (2020). *Deep fakes and the infocalypse: What you urgently need to know*. Hachette UK.
- Subki, A., Sugiantoro, B., & Prayudi, Y. (2018). Analisis Rekaman Suara Voice Changer dan Rekaman Suara Asli Menggunakan Metode Audio Forensik. *Indonesian Journal on Networking and Security (IJNS)*, 7(1).
- Sudibyo, A. (2019). *Jagat Digital: Pembebasan dan Penguasaan*. Kepustakaan populer gramedia.
- Tan, D. (2021). Metode Penelitian Hukum: Mengupas Dan Mengulas Metodologi Dalam Menyelenggarakan Penelitian Hukum. *Nusantara: Jurnal Ilmu Pengetahuan Sosial*, 8(8), 2463–2478.
- Ummah, I. K., & Putri, P. I. D. (2024). Swipe & Scroll Bijak Melawan Hoaks Pemilu 2024 di Sosial Media. *Jurnal Visi Pengabdian Kepada Masyarakat*, 5(2), 38–51.
- Zannettou, S., Sirivianos, M., Blackburn, J., & Kourtellis, N. (2019). The web of false information: Rumors, fake news, hoaxes, clickbait, and various other shenanigans. *Journal of Data and Information Quality (JDIQ)*, 11(3), 1–37.