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Font Legal Protection for Child Victims of Artificial Intelligence (AI)-Based Exploitation in Indonesia: Regulatory Challenges and Strengthening the Digital Legal System

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Abstract: *The development of Artificial Intelligence (AI) technology provides significant benefits to society, but also poses new threats to the protection of children's rights. One such threat is the exploitation of children's digital identities through deepfake technology, biometric data theft, and the manipulation of digital content without consent. This study aims to analyze the legal regulations in Indonesia regarding child protection from AI-based exploitation and formulate efforts to strengthen the digital legal system in the future. This study uses a normative legal research method with a statutory, conceptual, and comparative approach. The results indicate that existing regulations, such as the Child Protection Law, the Electronic Information and Transactions Law, and the Personal Data Protection Law, do not specifically regulate AI-based child exploitation. Therefore, legal reform is needed through the creation of adaptive regulations, strengthened oversight of digital platforms, and increased public digital literacy as a preventative measure. This research is expected to form the basis for developing legal policies that are responsive to developments in digital technology.*

Keyword: *legal protection, children, artificial intelligence, deepfake, digital exploitation.*

INTRODUCTION

Background

The increasingly rapid digital transformation has driven the use of Artificial Intelligence (AI) technology in various aspects of people's lives. This technology can increase work efficiency, accelerate data processing, and generate new innovations in various fields. However, on the other hand, the development of AI has also given rise to various legal issues that have the potential to threaten vulnerable groups, especially children. Children are a group with special rights to protection from all forms of violence, discrimination, and exploitation. This protection is guaranteed in Article 28B paragraph (2) of the 1945 Constitution of the Republic of Indonesia, which states that every child has the right to survive, grow, and develop, and has the right to protection from violence and discrimination. The development of AI technology has given rise to new, difficult-to-detect forms of exploitation, one of which is

deepfakes. Deepfake technology allows someone to manipulate a person's face, voice, or identity to appear as if they were real. In practice, photos and videos of children uploaded to social media can be exploited by irresponsible parties to produce fake content that has the potential to harm children psychologically and socially. Indonesia already has several regulations related to child protection and digital space, including Law Number 35 of 2014 concerning Amendments to Law Number 23 of 2002 concerning Child Protection, Law Number 1 of 2024 concerning the Second Amendment to Law Number 11 of 2008 concerning Electronic Information and Transactions, and Law Number 27 of 2022 concerning Personal Data Protection. However, these regulations do not specifically address the exploitation of children's digital identities generated through AI. This situation indicates a legal vacuum in the Indonesian legal system. Yet, technological development is progressing much faster than the development of regulations. If not addressed promptly, children could potentially become victims of increasingly complex digital rights violations. Previous research has focused primarily on protecting children from cyberbullying, online sexual exploitation, and personal data protection. However, studies on AI-based child exploitation are still limited. Therefore, this research is urgently needed to fill this gap in academic research and provide recommendations for the development of adaptive legal policies.

Research Objectives

This research aims to:

1. Analyze legal regulations in Indonesia regarding the protection of children from Artificial Intelligence-based exploitation.
2. Analyze the weaknesses of existing regulations in dealing with the development of AI technology.
3. Formulate strategies for strengthening the digital legal system to protect children from AI-based exploitation.

Supporting Theories

1. Legal Protection Theory

According to Hadjon (1987), legal protection is an effort provided by the state to protect people's rights through preventive and repressive measures. Legal protection aims to provide legal certainty, justice, and benefits for every citizen.

2. Children's Rights Theory

According to Soekanto (2014), children are legal subjects with special rights, so the state is obliged to provide maximum protection in all aspects of their lives, including in the digital space.

3. Responsive Legal Theory

According to Nonet and Selznick (1978), the law must be able to adapt to social change and technological developments to remain relevant in providing protection to society.

METHOD

Research Method

This study employed a normative legal research method using a qualitative approach. Normative legal research focuses on analyzing legal norms, statutory regulations, legal principles, doctrines, and conceptual frameworks related to legal issues (Marzuki, 2021).

This research utilized three approaches:

1. Statutory Approach, which examined legislation governing child protection, electronic information and transactions, and personal data protection in Indonesia.

2. Conceptual Approach, which analyzed legal concepts concerning children's rights, digital rights, and the development of Artificial Intelligence (AI).
3. Comparative Approach, which compared Indonesian regulations with international legal instruments and several foreign jurisdictions that have begun regulating AI technology.

The legal materials used consisted of:

Primary Legal Materials

- a. The 1945 Constitution of the Republic of Indonesia.
- b. Law Number 35 of 2014 concerning Child Protection.
- c. Law Number 1 of 2024 concerning the Second Amendment to Law Number 11 of 2008 concerning Electronic Information and Transactions.
- d. Law Number 27 of 2022 concerning Personal Data Protection
- e. The United Nations Convention on the Rights of the Child (UNCRC).

Secondary Legal Materials

Secondary data were obtained from scientific journals, books, legal doctrines, government reports, and international publications discussing AI governance and child protection. Data were analyzed using descriptive-analytical techniques to identify legal gaps and formulate recommendations for strengthening digital legal systems in Indonesia.

RESULT AND DISCUSSION

The Development of Artificial Intelligence and the Emergence of New Forms of Child Exploitation

The development of Artificial Intelligence (AI) has brought about major changes in the lives of global society. AI is no longer limited to simple automation systems, but has evolved into a generative technology capable of creating text, images, videos, sounds, and various forms of digital content that resemble human creations. This capability offers numerous benefits to the education, health, economic, creative industries, and government sectors. However, despite these benefits, AI also presents new threats to the protection of human rights, particularly children's rights. Children are a group that is highly vulnerable to the negative impacts of digital technology developments. This vulnerability arises because children lack the skills to understand digital security risks, while their internet activity is increasing over time. The presence of social media, video-sharing platforms, digital educational applications, and online games makes children an integral part of the modern digital ecosystem. One growing threat is AI-based child exploitation. This exploitation refers to the unauthorized use of a child's digital identity to produce manipulative content that has the potential to harm the child physically, psychologically, socially, and legally. This exploitation can take the form of deepfakes, voice cloning, digital identity theft, misuse of biometric data, and the creation of synthetic content involving images of children.

Deepfake technology allows someone to manipulate a person's face and expressions using artificial intelligence algorithms to produce videos that appear realistic. Photos of children uploaded by parents on social media can be taken and used by perpetrators to create fake content that is difficult to distinguish from the real thing. This situation poses very serious risks because it can damage a child's reputation, mental health, and future. In addition to deepfakes, voice cloning technology is also developing rapidly. This technology can imitate a person's voice using only a few seconds of the original voice recording. In the context of child protection, a child's voice can be used for various acts of fraud, manipulation, and other exploitation. This shows that threats to children in the AI era are no longer limited to physical or verbal violence, but have evolved into more complex digital threats. Another growing phenomenon is sharenting, the habit of parents sharing photos, videos, and activities of their children on social media. Although done with positive intentions, this practice has the potential

to open up opportunities for criminals to collect children's personal data and use it for harmful purposes. Widespread digital identities will be easily processed using AI to produce various forms of digital manipulation. This development demonstrates that child exploitation in the AI era has different characteristics than conventional crimes. While previously child exploitation mostly occurred through direct contact, now exploitation can be carried out anonymously, across borders, and in a very short time. Therefore, a more adaptive legal approach is needed to anticipate these changing crime patterns.

Analysis of Weaknesses of Child Protection Regulations in Indonesia in Facing AI

Indonesia already has several regulations related to child protection and the digital space. However, these regulations have not fully addressed the challenges of AI developments. Law Number 35 of 2014 concerning Child Protection is the primary instrument protecting children's rights. This law affirms that children have the right to protection from all forms of violence, discrimination, and exploitation. However, this regulation does not explicitly regulate exploitation generated through AI. The absence of specific regulations creates a legal vacuum. For example, when a child's photo is used to create a deepfake video, there is no regulation that explicitly categorizes this action as a form of AI-based exploitation. Furthermore, Law Number 1 of 2024 concerning Electronic Information and Transactions (ITE) regulates the unlawful distribution of electronic information. However, this law does not specifically regulate liability for the use of generative AI. As a result, law enforcement officials have difficulty determining the limits of perpetrators' liability. Law Number 27 of 2022 concerning Personal Data Protection also does not yet provide detailed regulations for the protection of children's biometric data processed using AI. Yet, biometric data such as face, voice, fingerprints, and digital behavioral patterns are crucial components in the operation of modern AI.

Furthermore, existing regulations tend to be reactive, created after a problem arises. However, technological developments occur much faster than the process of creating laws. This imbalance often results in the law lagging behind technological innovation. Another problem lies in weak inter-institutional coordination. Child protection in the digital space involves numerous institutions, such as the Ministry of Communication and Digital, the Ministry of Women's Empowerment and Child Protection, the Indonesian National Police, educational institutions, and digital platform providers. This lack of policy integration means that child protection is not yet optimal.

Responsive Legal Theory Perspective on Child Protection in the AI Era

The responsive legal theory proposed by Nonet and Selznick (1978) states that the law must be able to adapt to social changes occurring in society. Law should not be static, but must evolve with the dynamics of the times. In the context of AI development, responsive legal theory becomes highly relevant because technology is evolving at an extraordinary pace. Laws that fail to keep pace with technological developments will lose their function as a tool for protecting society. A responsive legal approach prioritizes child protection. The state plays not only a regulatory role but also a facilitator, ensuring that the entire digital ecosystem operates safely for children. Responsive law also requires public participation in the policy-making process. This ensures that the resulting regulations are more aligned with societal needs and ongoing technological developments. The application of responsive legal theory can be realized through three main approaches: preventive protection, repressive protection, and collaborative protection. Preventive protection is implemented through digital education, increasing AI literacy, and educating the public about cybersecurity. Repressive protection is implemented through imposing sanctions on perpetrators who misuse AI. Meanwhile, collaborative protection involves all stakeholders.

International Policy Comparison

Several countries have taken strategic steps in regulating AI. The European Union passed the AI Act, which classifies AI systems based on their risk level. AI systems involving children are categorized as high-risk technology and require strict oversight. The United States has begun regulating the use of deepfakes, especially those involving children. Several states have established criminal sanctions for those who distribute deepfake content that is harmful to children. China has implemented a policy requiring all AI-generated content to be specifically labeled for easy identification by the public. The experiences of these countries demonstrate that Indonesia needs to immediately develop a comprehensive AI regulatory system. Indonesia can no longer rely on conventional regulations created before the emergence of generative AI.

Model of AI-Based Child Legal Protection in Indonesia

This study proposes a legal protection model consisting of four main pillars.

1. Establishment of a National AI Law

Indonesia needs to establish specific regulations regarding AI that regulate:

- a. Definition of AI.
- b. Prohibition of digital exploitation of children
- c. Use of biometric data.
- d. Mandatory transparency of AI systems.
- e. AI oversight mechanisms.

2. Strengthening Digital Platform Responsibility

Digital platforms must have legal responsibility to protect children. Steps that can be taken include:

- a. Implementing a deepfake detection system.
- b. Verifying user age.
- c. Removing harmful content.
- d. An easily accessible reporting system.

3. Strengthening Digital Literacy

Digital literacy is a crucial preventative measure. Digital literacy programs should be provided to:

- a. Children.
- b. Parents.
- c. Teachers.
- d. The general public.

The material provided includes personal data security, AI risks, and the ethical use of technology.

4. Multi-Stakeholder Collaboration

Child protection cannot be achieved by the government alone. Collaboration is required between:

- a. Government.
- b. Schools.
- c. Families.
- d. Technology companies.
- e. Civil society organizations.

This collaboration will create a more effective and sustainable protection system.

Legal Implications and Implementation Challenges

The implementation of AI-based legal protection in Indonesia will face various challenges. First, limited human resources. Law enforcement officers still need capacity building in understanding AI technology. Second, limited technological infrastructure. Indonesia needs a

sophisticated AI detection system to identify manipulative content. Third, jurisdictional challenges. AI-based crimes are transnational, requiring international cooperation. Fourth, low digital literacy. Many people do not yet understand the risks of spreading personal data online. Fifth, the rapid development of AI. Regulations must be flexible to adapt to technological developments. However, these challenges are not a reason to delay the formation of regulations. In fact, this situation provides momentum for Indonesia to build a modern and adaptive legal system. Child protection in the AI era is no longer simply a technological issue, but rather part of efforts to protect human rights. The state has a constitutional responsibility to ensure child safety, including in the digital space. Therefore, a shift in the legal paradigm is needed from a reactive approach to an anticipatory one. Regulations should not only be created to resolve existing problems but also to prevent future threats. This research confirms that legal protection for children in the AI era must be a national priority. The increasingly widespread presence of AI is unavoidable, but its negative impacts can be minimized through adaptive regulations, effective oversight, and collaboration across all elements of society. If these measures can be consistently implemented, Indonesia will be able to build a digital ecosystem that is safe, inclusive, and oriented toward the best interests of the child. Thus, the development of AI technology will not only be an instrument of progress but also a means to realize sustainable child protection in the digital era.

CONCLUSION

The rapid advancement of Artificial Intelligence has fundamentally transformed the pattern of child exploitation in digital environments. This study demonstrates that children have become one of the most vulnerable groups to emerging digital threats, including deepfake technology, voice cloning, biometric data misuse, identity theft, and AI-generated exploitative content. The findings reveal that the current Indonesian legal framework has not been fully prepared to address these emerging risks. Existing regulations, namely Law Number 35 of 2014 concerning Child Protection, Law Number 1 of 2024 concerning Electronic Information and Transactions, and Law Number 27 of 2022 concerning Personal Data Protection, have not specifically regulated AI-based child exploitation. Consequently, a legal vacuum persists, creating challenges for law enforcement agencies in protecting children's digital rights. This study also confirms that responsive law theory is highly relevant in addressing technological disruption. Legal systems should no longer be reactive but must become anticipatory and adaptive to technological developments. The protection of children in the AI era requires a comprehensive legal framework that integrates preventive, repressive, and collaborative approaches.

This research proposes four strategic pillars to strengthen child protection in Indonesia, namely: (1) establishing AI-specific legislation; (2) strengthening digital platform accountability; (3) enhancing digital and AI literacy; and (4) developing multi-stakeholder collaboration among governments, educational institutions, families, technology companies, and civil society organizations. Ultimately, protecting children in the era of Artificial Intelligence should become a national priority. Technological innovation should not only promote economic growth and social development but must also ensure the protection of children's rights and dignity in digital environments. Therefore, Indonesia must immediately develop adaptive, inclusive, and sustainable legal policies to safeguard future generations from the negative impacts of AI.

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