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The Urgency of Cybercrime Law Reform in Indonesia: Resolving Artificial Intelligence Criminal Liability

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Abstract: The existence of AI is a separate system based on logic, where the information entered into the system will be processed with a programmed algorithm to determine a predetermined result. AI can cause various forms of harm to everyone, including its creator, and the harm it causes can have a long-lasting impact, considering that AI can make decisions similar to humans. The application of AI in the industrial sector will impact all existing systems, including the criminal justice system in all countries. Therefore, the legal regulation of cybercrime in Indonesia needs to be reformed to resolve criminal liability for criminal acts that AI can carry out. The formulation of the problem in this study is what is the urgency of updating cybercrime law in Indonesia. Furthermore, how is the legal policy on criminal liability for artificial intelligence resolved it. Thus, this study normative such as legal research carried out by examining library materials or data using statutory and analytical approaches. This study concludes and suggests that responsibility must be imposed on AI users and legal entities whose responsible parties are company directors. AI creators must also be responsible for the AI's actions. The renewal of cyber law in Indonesia is significant and should be done immediately, even in the Electronic Information and Transactions Law. Almost all institutional and personal documents are stored electronically; the state must also protect them. Other parties can then misuse these documents, which can be traded on the cyber black market and used irresponsibly. Illegal activities in cyberspace are also increasing, and the diversity of their actions with various skills is constantly increasing.

Keywords : Cyber Crime; Criminal Liability; Artificial Intelligence

Abstrak: Keberadaan AI merupakan suatu sistem tersendiri yang berbasis pada logika, dimana informasi yang dimasukkan ke dalam sistem akan diolah dengan suatu algoritma yang telah diprogramkan untuk menentukan suatu hasil yang telah ditentukan sebelumnya. AI dapat menimbulkan berbagai bentuk kerugian bagi setiap orang termasuk penciptanya, dan kerugian yang ditimbulkannya dapat berdampak jangka panjang mengingat AI dapat mengambil keputusan yang serupa dengan manusia. Penerapan AI pada sektor industri akan berdampak pada seluruh sistem yang ada, termasuk sistem peradilan pidana di semua negara, oleh karena itu pengaturan hukum tindak pidana siber di Indonesia perlu direformasi sebagai penyelesaian pertanggungjawaban pidana atas tindak pidana yang dapat dilakukan oleh AI. Rumusan masalah dalam penelitian ini adalah bagaimana urgensi pemutakhiran hukum tindak pidana siber di Indonesia. Dan bagaimana penyelesaian kebijakan hukum pertanggungjawaban pidana atas kecerdasan buatan. Penelitian ini merupakan penelitian

normatif yaitu penelitian hukum yang dilakukan dengan cara meneliti bahan pustaka atau data dengan menggunakan pendekatan perundang-undangan dan analitis. Simpulan dan saran dalam penelitian ini yaitu pertanggungjawaban harus dibebankan kepada pengguna AI dan badan hukum yang pihak yang bertanggung jawab adalah direksi perusahaan. Pencipta AI juga harus bertanggung jawab atas perbuatan AI yang diciptakannya. Pembaharuan hukum siber di Indonesia sangat penting untuk segera dilakukan, termasuk dalam Undang-Undang Informasi dan Transaksi Elektronik. Hampir semua dokumen baik yang bersifat kelembagaan maupun pribadi saat ini tersimpan dalam bentuk elektronik, tentunya hal ini juga harus dilindungi oleh negara. Dokumen-dokumen tersebut kemudian dapat disalahgunakan oleh pihak lain, bahkan dapat diperjualbelikan di pasar gelap siber dan kemudian digunakan secara tidak bertanggung jawab. Aktivitas ilegal di dunia maya juga semakin meningkat dan beragam dalam menjalankan aksinya dengan berbagai ketrampilan yang selalu bertambah.

Keywords : *Cyber Crime; Pertanggungjawaban Pidana; Artificial Intelligence*

INTRODUCTION

Physical crimes alone cannot currently describe all that occurs; instead, crimes are evolving in tandem with the current wave of modernization¹. Technology is developing so rapidly that it can create human engineering. One of the most significant cybercrime threats to all countries, especially Indonesia, which currently does not have regulations, is regarding Artificial Intelligence.

The ability of Artificial Intelligence to use technology to create a new environment in the digital realm is why it is proliferating and gaining public attention². Artificial Intelligence, often called AI, is a technology created to imitate human behaviour and thinking³. Linguistically, "Artificial" means something that is not real, and "Intelligence" encompasses logic, understanding, learning, planning, and problem-solving⁴.

Furthermore, artificial Intelligence (AI) is a human-made technology developed to imitate human behaviour and thinking⁵. Linguistically, "artificial" refers to something that is not real, while "intelligence" encompasses logic, understanding, learning, planning, and problem-solving⁶.

AI has been designed to think and behave like humans in various fields, including learning, perception, playing chess, proving mathematical theories, writing poetry, driving a

¹ Agustini, Shenti, *et.al.* Legal Analysis Regarding Donation Fraud Through Online Media. *Justisi*, 10(2), (2024). Hlm: 285. DOI: <https://doi.org/10.33506/js.v10i2.2852>

² Fitriyani, Raihani Alvinna, *et.al.* Tren Teknologi Artificial Intelligence Pengganti Model Iklan Di Masa Depan. *Jurnal Sosial-Politika*, 2(2), 2021. Hlm: 119. DOI: <https://doi.org/10.54144/jsp.v2i2.39>

³ Jaya, Febri dan Wilton Goh, Analisis Yuridis Terhadap Kedudukan Kecerdasan Buatan Atau Artificial Intelligence Sebagai Subjek Hukum Pada Hukum Positif Indonesia. *Supremasi Hukum*, 17(02), (2021). Hlm: 2. DOI: <https://doi.org/10.33592/jsh.v17i2.1287>

⁴ Sihombing, Eka NAM dan Muhammad Yusrizal Adi Syaputra, Implementasi Penggunaan Kecerdasan Buatan Dalam Pembentukan Peraturan Daerah, *Jurnal Ilmiah Kebijakan Hukum*, 14(3), (2020). Hlm: 424. DOI: <https://doi.org/10.30641/kebijakan.2020.v14.419-434>

⁵ Jaya, Febri dan Wilton Goh, Analisis Yuridis Terhadap Kedudukan Kecerdasan Buatan Atau Artificial Intelligence Sebagai Subjek Hukum Pada Hukum Positif Indonesia.

⁶ Sihombing and Adi Syaputra, Implementasi Penggunaan Kecerdasan Buatan Dalam Pembentukan Peraturan Daerah.

car, and diagnosing diseases⁷. Nick Bostrom explains that there are several levels of AI evolution currently, namely⁸: Artificial Narrow Intelligence (ANI), Artificial General Intelligence (AGI), and Artificial Super Intelligence (ASI). Artificial Narrow Intelligence (ANI), or Weak AI, is an AI that was created to help humans solve things that are not too difficult, such as playing chess and driving a car. Artificial General Intelligence (AGI) or Strong AI equals humans or living creatures with the skills to learn, work and think like humans. Artificial superintelligence (ASI) is the highest level of AI designed to surpass human abilities.

The current development of AI is growth rapidly because AI has now helps human in various ways. AI is currently still being developed so that it can be more helpful in people daily life. Thus ,the results of developments in the fourth industrial revolution era have provided quite a positive response from the public. Until now, many people have used AI. It has covered all fields, including economics, health, education, and the legal sector.

Virtual Assistant is an AI that helps human in everyday life such as Siri, Google Assistant, and Alexa. This virtual Assistant helps many people by turning on the lights, opening the door, turning on the AC, and so on. Google Search and Google Maps are also the AI most widely used by various groups to search for information, learn, and guide users so they do not get lost.

Humans utilize AI in the fields of economics and business in e-commerce through chatbot features, recommendation engines, and smart logistics, which can help e-commerce customers obtain products more efficiently, improve services, and make it easier to carry out transactions carried out by sellers and buyers⁹. AI is also used in the television industry; for example, virtual anchors can replace news anchors. Apart from the economic sector and the television industry, the health sector has also used AI to assist in medical treatment. The da Vinci system uses AI technology to perform more accurate operations and provide minimal trauma to patients¹⁰.

Moreover, there is a dilemma regarding the position of AI, namely whether AI in law can be used as a legal subject or not or whether its position will be equal to that of a legal entity or as a legal object¹¹. Based on the ability of AI to carry out actions like humans to help and replace humans, AI is worthy of being placed in law as a legal subject¹². There are three perspectives, according to Gabriel Halevy, in placing AI in legal regulations, namely as the perpetration by another liability model, the natural probable consequence liability model, and the direct liability model¹³.

⁷ Sihombing dan Adi Syaputra. Implementasi Penggunaan Kecerdasan Buatan Dalam Pembentukan Peraturan Daerah.

⁸ Sihombing dan Adi Syaputra. Implementasi Penggunaan Kecerdasan Buatan Dalam Pembentukan Peraturan Daerah.

⁹ Pakpahan, Roida. Analisa Pengaruh Implementasi Artificial. *Journal of Information System, Informatics and Computing*, 5(2), (2021). Hlm: 509. DOI: <https://doi.org/10.52362/jisicom.v5i2.616>.

¹⁰ Pakpahan. Analisa Pengaruh Implementasi Artificial.

¹¹ Haris, M. T. A. R. & Tantimin. Analisis Pertanggungjawaban Hukum Pidana Terhadap Pemanfaatan Artificial Intelligence Di Indonesia. *Jurnal Komunikasi Hukum*, 8(1), (2022). Hlm: 307-316. DOI: <https://doi.org/10.23887/jkh.v8i1.44408>.

¹² Kurniawan, Itok. Analisis Terhadap Artificial Intelligence Sebagai Subjek Hukum Pidana. *Mutiara : Jurnal Ilmiah Multidisiplin Indonesia*, 1(1), (2023). Hlm: 35-44. DOI: <https://doi.org/10.61404/jimi.v1i1.4>.

¹³ Sulistio, Faizin, dan Aizahra Daffa Salsabilla. Pertanggungjawaban Pada Tindak Pidana Yang Dilakukan Agen Otonom Artificial Intelegence. *Unes Law Review*, 6(2), (2023). Hlm: 5479-5490. DOI: <https://doi.org/10.31933/unesrev.v6i2.1209>.

The ITE Law still needs to contain provisions on the use and misuse of AI by individuals. Then, the regulations of the Circular Letter of the Minister of Communication and Information Technology Number 9 of 2023 concerning the Ethics of Artificial Intelligence are still limited to the implementation of artificial intelligence in Indonesia and can also be used for the development of technological innovation as well as special requirements that business actors and electronic system organizers must meet in carrying out artificial intelligence-based programming businesses. In contrast, all regulations in the Criminal Law limit legal subjects to individuals and legal entities.

Many also reject AI as a legal subject because they think it cannot fulfill the requirements as a legal subject. According to Said Sampera, the subject of law itself is something that can support rights and obligations. The critical question is whether AI can have the rights and obligations demanded¹⁴. Positioning as a legal subject is important for assessing whether AI can be held responsible or not. Like humans, AI also, of course, has various shortcomings, which is enough to make humans feel worried about the presence of this AI. It is feared that AI, which is said to be able to replace humans in various matters, will malfunction, resulting in more losses for humans.

This study formulates the problem of the urgency of reforming cybercrime law in Indonesia and the legal policy resolution regarding criminal liability for artificial intelligence. This study aims to determine the urgency of updating cybercrime law in Indonesia and the legal policy resolution regarding criminal liability for artificial intelligence.

The state of the art of this study is a detailed explanation of the update of cybercrime law in Indonesia and the resolution of legal policy on criminal liability for artificial intelligence.

The first study, *Jurnal Komunikasi Hukum* Vol. 8 No. 1, by Muhammad Tan Abdul Rahman Haris, Tantimin (2022), entitled "Analysis of Criminal Legal Liability for the Utilization of Artificial Intelligence in Indonesia." The difference between the researcher and the first study lies in the object of study. In contrast, the first study only discusses the analysis of criminal legal liability in the utilization of Artificial Intelligence. The researcher discusses the object of criminal liability for Artificial Intelligence in the update of cybercrime law.

The second study, *Jurnal Unnes Law Review* Vol. 6, No. 2, by Faizin Sulistio and Aizahra Daffa Salsabilla (2023), is entitled "Accountability for Criminal Acts Committed by Autonomous Artificial Intelligence Agents." The difference between the researcher and the second study lies in the object of research. The second study discusses the criminal liability of autonomous Artificial Intelligence agents, while the researcher discusses the criminal liability of Artificial Intelligence in the renewal of cybercrime law.

The third study by Eka Nanda Ravizki (2019) from the Master of Law, Gadjah Mada University entitled "Criminal Liability of Artificial Intelligence (AI): The Legal Conceptual Study and The Regulating Challenges in the Global Disruptive Technology Era." The difference between the third research and the researcher lies in the object of the study. The third study object is the conceptual study of law and regulatory challenges in the era of global disruptive technology in the criminal liability of artificial intelligence. The researcher has an object that discusses the study of the renewal of cybercrime law in the criminal liability of

¹⁴ Rama, Bagus Gede Ari, *et.al.* Urgensi Pengaturan Artificial Intelligence (AI) Dalam Bidang Hukum Hak Cipta Di Indonesia. *Jurnal Rechtsens*, 12(2), (2023). Hlm: 213. DOI: <https://doi.org/10.56013/rechtsens.v12i2.2395>.

Artificial Intelligence.

METHOD

This study is normative legal research using normative methods. Normative legal research is legal research that places law as a system of norms¹⁵. The method used in this study is juridical, a set of legal research conducted through literature studies or secondary information as a basis for research by searching for laws and regulations and literature related to the problem being studied¹⁶. This juridical method is strengthened using a statutory approach and a comparative approach. A comparative approach is an approach taken by differentiating or comparing one law or legal system with another¹⁷. The comparative method used in this study was carried out using a critical comparison approach (more concerned with whether the legal resolution of a problem is suitable, practicable, fair, and why the resolution is that way¹⁸. The conceptual approach is an approach in legal research that provides an analytical perspective on solving problems in legal research seen from aspects of the legal concept behind it or can even be seen from the materials contained in the norming of a regulation related to the concept¹⁹. This approach is carried out by examining all statutory regulations and regulations that are related to the legal issue being handled²⁰. The case approach is the approach used by conducting a study of cases related to the issues at hand, which have become court decisions that have permanent legal force²¹. The next stage is qualitative data analysis, which is to find the most relevant data to be taken and analyzed so as to produce a conclusion that can answer the problems raised in this study²². Qualitative analysis is data analysis that does not use numbers but provides descriptions in words of the findings and, therefore, prioritizes the quality of the data and not quantity²³.

DISCUSSION

The Urgency of Updating Cybercrime Law in Indonesia

Meaning of Artificial Intelligence

Artificial Intelligence, ten abbreviated as AI, is a human-made technology that was

¹⁵ Mukti Fajar ND dan Yulianto Achmad, *Dualisme Penelitian Hukum Normatif dan Hukum Empiris*, (Yogyakarta: Pustaka Pelajar, 2010), hlm. 153.

¹⁶ Benuf, Kornelius dan Muhammad Azhar. *Metodologi Penelitian Hukum sebagai Instrumen Mengurai Permasalahan Hukum Kontemporer*. *Jurnal Keadilan*, 7(1), (2020). Hlm: 20-33. DOI: <https://doi.org/10.14710/gk.2020.7504>.

¹⁷ Muhaimin, *Metode Penelitian Hukum*, ed. Fatia Hijriyanti, First (Mataram: Mataram University Press, 2020), 56–57.

¹⁸ Arief, Barda Nawawi. *Perbandingan Hukum Pidana*, (Cetakan Ke-9, PT Rajagrafindo Persada 2011), 3.

¹⁹ Ishaq, *Metode Penelitian Hukum Dan Penulisan Skripsi, Tesis, Serta Disertasi*, ALFABETA, Cv, 2017, 99.

²⁰ Marzuki, Peter Mahmud. *Penelitian Hukum* (Jakarta: Kencana Prenada Media Group, 2019), 93.

²¹ Ishaq, *Metode Penelitian Hukum Dan Penulisan Skripsi, Tesis, Serta Disertasi*, 111.

²² Muhaimin. *Metode Penelitian Hukum*, 126.

²³ Muhaimin. *Metode Penelitian Hukum*, 127.

created and developed so that it can imitate human behavior or ways of thinking²⁴. Linguistically, artificial intelligence means something that is not real, and intelligence has quite a complex meaning, namely logic, understanding, learning, planning, and problem-solving²⁵. AI has been designed to be able to think and behave like humans in general. Budiharto and Suhartono argue that AI has covered all fairly broad fields, from Learning or Perception to playing chess, proving mathematical theories, writing poetry, driving a car, and diagnosing diseases²⁶.

Nick Bostrom explains that there are several levels of AI evolution currently, namely²⁷: Artificial Narrow Intelligence (ANI), Artificial General Intelligence (AGI), and Artificial Super Intelligence (ASI). Artificial Narrow Intelligence (ANI), or Weak AI, is an AI that was created to help humans solve things that are not too difficult, such as playing chess and driving a car. Artificial General Intelligence (AGI) or Strong AI has an equal position with humans or living creatures that have the skills to learn, work, and think like humans. Artificial Super Intelligence (ASI) is the highest level of AI specifically designed to surpass human abilities.

Virtual Assistant is an AI that helps human in everyday life such as Siri, Google Assistant, and Alexa. This virtual Assistant helps many people by turning on the lights, opening the door, turning on the AC, and so on. Google Search and Google Maps are also the AI most widely used by various groups to search for information, learn, and guide the way so users stay aware of the information.

Humans utilize AI in the economic and business fields in E-Commerce through chatbot features, recommendation engines, and smart logistics, which can help e-commerce customers more easily obtain products and improve services and make it easier to carry out transactions carried out by sellers and buyers (Pakpahan, 2021: 509). AI is also used in the television industry; for example, virtual anchors can replace news anchors. Apart from the economic sector and the television industry, the health sector has also used AI to assist in medical treatment. The da Vinci system uses AI technology to perform more accurate operations and provide minimal trauma to patients²⁸.

As humans, AI has various shortcomings, which are enough to make humans feel worried about its presence. It is feared that AI, which is said to be able to replace humans in various matters, will malfunction, resulting in more losses for humans.

²⁴ Jaya, Febrina dan Wilton Goh, Analisis Yuridis Terhadap Kedudukan Kecerdasan Buatan Atau Artificial Intelligence Sebagai Subjek Hukum Pada Hukum Positif Indonesia.

²⁵ Sihombing dan Adi Syaputra. Implementasi Penggunaan Kecerdasan Buatan Dalam Pembentukan Peraturan Daerah.

²⁶ Sihombing dan Adi Syaputra. Implementasi Penggunaan Kecerdasan Buatan Dalam Pembentukan Peraturan Daerah.

²⁷ Sihombing dan Adi Syaputra. Implementasi Penggunaan Kecerdasan Buatan Dalam Pembentukan Peraturan Daerah.

²⁸ Pakpahan. Analisa Pengaruh Implementasi Artificial.

Fault and Criminal Responsibility

Perpetrators of criminal acts must fulfill the requirements for criminal responsibility. According to Sudarto, the definition of criminal liability can be interpreted as a mistake in the broadest sense. Sudarto explained that criminal responsibility involves several conditions, including²⁹: a) Responsibility: Implies that the mental state of the perpetrator of the action must be expected to be considered legally responsible; b) Inner Connection: Involves an emotional connection between the creator and his actions, which can be intentional (*dolus*) or negligent (*culpa*); c) Absence of Forgiving Reason: No excuse can erase the mistake or provide legal justification for the action taken.

Fault and responsibility for actions cannot be separated. Responsibility for criminal acts can only be applied to someone who commits an act wrongfully. According to Moeljatno, guilt refers to a specific psychological condition of the perpetrator of a criminal act and the existence of a relationship between this condition and the act committed so that the perpetrator can be blamed for his actions. It relates to intentionality or negligence as forms of fault³⁰.

In more detail, intentionality is defined as "willing and knowing" (*willens en wetens*)³¹. It means that someone who acts intentionally must intend and be aware of that action and the consequences that may arise. Deliberation means intending and knowing clearly what is being done, and people who carry out actions intentionally are expected to have full awareness of the action and its consequences. In the context of *Memorie van Toelichting* (M.v.T), *dolus/opzet* (intentionally) is defined as "willen en weten" or wanting and knowing³². Van Hatum provides a further explanation, saying that "willing" means wanting an action and knowing the consequences of the action (*opzet als oogmerk*). In contrast, "knowing" is defined as knowing the action and the consequences of the action (*opzet als wetenschap*)³³.

The legal subject theory is divided into 2 (two) forms, namely natural legal subject theory and positive legal subject theory³⁴ : a) Natural Law Theory³⁵ : This theory is in accordance with the principle that human rights and existing laws must be based on human nature itself. This theory states that everyone has the same rights and cannot be revoked by

²⁹ Alin, Failin. Sistem Pidana dan Pemidanaan Di Dalam Pembaharuan Hukum Pidana Indonesia. *Jurnal Cendikia Hukum*, 3(1), (2017). Hlm: 14-31. DOI: <http://doi.org/10.33760/jch.v3i1.6>

³⁰ Adami Chazawi, *Pelajaran Hukum Pidana* (Jakarta: Raja Grafindo Persada, 2007).

³¹ Utoyo, Marsudi, *et.al.* Sengaja Dan Tidak Sengaja Dalam Hukum Pidana Indonesia. *Lex Librum: Jurnal Ilmu Hukum*, 7(1), (2020). Hlm: 75-85. DOI: <http://dx.doi.org/10.46839/lljih.v0i0.298>

³² Asmadi, Erwin. Rumusan Delik dan Pemidanaan Bagi Tindak Pidana Pencemaran Nama Baik di Media Sosial. *De Lega Lata Jurnal Ilmu Hukum*, 6(1), (2021). Hlm: 16-32. DOI: <https://doi.org/10.30596/dll.v6i1.4910>

³³ Joshua, Edo Bintang. Analisis Ketidadaan Niat (*Mens rea*) Dalam Pemidanaan Pada Putusan Pengadilan Negeri Jakarta Pusat Nomor 844/PID.B/2019/PN.Jkt.Pst. *Jurnal Hukum Adigama*, 4(2), (2021), Hlm: 3930-3952. DOI: <https://doi.org/10.24912/adigama.v4i2.17975>

³⁴ Rodliyah, *et.al.* Konsep Pertanggungjawaban Pidana Korporasi (Corporate Crime) Dalam Sistem Hukum Pidana Indonesia. *Jurnal Kompilasi Hukum*, 5(1), (2020). Hlm: 192-206. DOI: <https://doi.org/10.29303/jkh.v5i1.43>

³⁵ M. Hajar. Dialektika antara Aliran Hukum Alam dan Hukum Positif dan Relevansi dengan Hukum Islam. *Jurnal Hukum Ius Quia Iustum*, 20(4), (2023). Hlm: 563-579. DOI: <https://doi.org/10.20885/iustum.vol20.iss4.art4>

other forces or interests. In this theory, humans are considered the leading legal subjects, and the law must recognize and protect their rights; b) Positive Law Theory³⁶ : This theory focuses on the view of law as a product of the state or ruler. In this theory, a legal subject is defined as a person or entity recognized as a legal subject by positive law or applicable law. It means that legal subjects are people or entities recognized by positive law and given rights and obligations related to their legal status.

The two theories differ in their assumptions and philosophical basis, but both form an important basis in the modern legal system. Modern legal systems combine these two theories and consider a more holistic view of law to ensure the protection of rights and balance of interests in society.

Legal Policy on Criminal Liability for Artificial Intelligence

Artificial Intelligence Criminal Liability Analysis

In its development, AI has now entered the realm of law. Currently, the development of AI has exceeded human capabilities, so it is no longer only used as a legal object, but it is also possible that AI can be used as a legal subject on par with a legal entity. Indonesia regulates technology in Law Number 19 of 2016 concerning Amendments to Law Number 11 of 2008 concerning Information and Electronic Transactions. This law does not explicitly mention AI. According to Article 1 of Law Number 19 of 2016, legal subjects are the sender, recipient, person, business entity and government³⁷.

Legal subjects can act legally or carry out laws, and those mentioned in positive law are humans and legal entities. The opportunity for AI to become a legal subject is quite significant because AI currently thinks and acts more than humans in general. L.J. van Apeldoorn argues that "to be able to carry out legal acts, certain conditions are required, namely legal subjects who have the capacity to hold rights, but must be distinguished by their capacity to carry out legal acts such as minors and people under guardianship who are not legally competent"³⁸.

This explanation means that what can be said to be a legal subject or not is determined by the current law. AI can now have rights and obligations that are regulated by legal norms because AI can be equated with legal entities that are now declared as legal subjects. Legal entities are the same as AI, which support rights and obligations and can take legal action or legal actions³⁹.

The Civil Code also indirectly provides the option that AI can be analogous to workers,

³⁶ M. Hajar. Dialektika antara Aliran Hukum Alam dan Hukum Positif dan Relevansi dengan Hukum Islam.

³⁷ Jaya, Febri dan Wilton Goh, Analisis Yuridis Terhadap Kedudukan Kecerdasan Buatan Atau Artificial Intelligence Sebagai Subjek Hukum Pada Hukum Positif Indonesia.

³⁸ Jaya, Febri dan Wilton Goh, Analisis Yuridis Terhadap Kedudukan Kecerdasan Buatan Atau Artificial Intelligence Sebagai Subjek Hukum Pada Hukum Positif Indonesia.

³⁹ Jaya, Febri dan Wilton Goh, Analisis Yuridis Terhadap Kedudukan Kecerdasan Buatan Atau Artificial Intelligence Sebagai Subjek Hukum Pada Hukum Positif Indonesia.

as seen from Article 1367 paragraphs (1) and (3) of the Civil Code⁴⁰. This analogy of AI as a worker can be seen from the characteristics of workers attached to the AI system. The application and use of AI in everyday life can also help what humans can actually do, which makes the impression of AI increasingly attached to workers. Thus, if AI is analogous to workers, then responsibility for AI negligence/mistakes can be borne by the AI owner as the "employer"⁴¹.

Additionally, keep in mind that if an AI is a worker, he or she has a legal relationship with the employer. Of course, he or she is also responsible to his employer if he or she breaks the law. AI is considered a worker who can also be responsible independently. However, in practice, this is very difficult, so it still requires humans to be responsible⁴².

Apart from analogizing AI as a worker, there is also the possibility that AI can be analogous to an animal. It simply sees the similarities between animals and AI as entities that can move and behave independently. In this case, the Criminal Code states that if an animal causes harm, then the owner will be responsible. Article 1368 of the Civil Code states that if an AI commits an act that violates the law or harms another party, then everything caused by the AI's actions will be borne by the owner or person running the AI. However, the analogy that AI can be compared to animals is a long-standing debate that still needs to be studied in more depth.

The conditions-based method can recognize the legal subject status of a non-human entity. They have legal personality not because of something inherent in nature or because of how they will respond to the law but simply because, based on the facts, the law treats them as having legal rights and obligations. Status as a legal subject is a conclusion and not a premise.

Besides, this method is also in line with the historical development of legal subjects. The most straightforward example is granting legal subject status to a Limited Liability Company. In other words, it is actually familiar that the concept of non-human entities having legal rights and obligations⁴³.

Thus, recognizing legal entities as legal subjects is a pioneer in the creation of AI legal subjects. The emergence of legal entities is an example that states that personification has been carried out and realized. In the history of the development of the concept of legal

⁴⁰ Simbolon, Yolanda. Pertanggungjawaban Perdata Terhadap Artificial Intelligence Yang Menimbulkan Kerugian Menurut Hukum Di Indonesia. *Veritas et Justitia*, 9(1), (2023). Hlm: 246-273. DOI: <https://doi.org/10.25123/vej.v9i1.6037>

⁴¹ Astiti, Ni Made Yordha Ayu. Strict Liability of Artificial Intelligence: Pertanggungjawaban kepada Pengatur AI ataukah AI yang Diberikan Beban Pertanggungjawaban?. *Jurnal Magister Hukum Udayana*, 12(4), (2023). Hlm: 962-980. DOI: <https://doi.org/10.24843/JMHU.2023.v12.i04.p14>

⁴² Ravizki, Eka Nanda dan Lintang Yudhantaka, Artificial Intelligence Sebagai Subjek Hukum: Tinjauan Konseptual dan Tantangan Pengaturan di Indonesia, *Jurnal Notaire*, 5(3), (2022). Hlm: 359. DOI: <https://doi.org/10.20473/ntr.v5i3.39063>

⁴³ Ravizki, Eka Nanda dan Lintang Yudhantaka, Artificial Intelligence Sebagai Subjek Hukum: Tinjauan Konseptual dan Tantangan Pengaturan di Indonesia

subjects, legal entities are now not the only manifestation of AI legal subjects.

The same concept should also be developed to refer to something other than humans as a legal subject. It is important to note that if AI is recognized as a legal subject, it does not mean that the law is bound to grant AI all the legal rights and obligations that legal subjects, in general, have, let alone those that humans have. The legal status given to AI must be in accordance with considerations that justify attribution and legal personality, as well as practical legal considerations arising from its natural nature⁴⁴. It is what makes issues related to legal personality, legal capability, and liability/responsibility of AI interesting for further study⁴⁵.

Legal liability for AI's actions needs to be adequately studied. Even though AI has the same legal subject position as a legal entity, responsibility for legal actions carried out by AI must be clear and have legal certainty. This responsibility must be borne by AI users as well as legal entities whose responsibility is the director of a company or head of a foundation⁴⁶. However, those responsible for AI are not only limited to AI users. There are still important parties who should not be excluded, namely the creators. AI creators must also be held responsible for legal actions carried out by the AI they created. If there is an error in its creation or intentional creation of AI that can harm other people without the AI user's awareness of AI science, the AI user will be harmed. In this case, like a legal entity, AI users can make authentic deeds before a notary and receive approval from government agencies such as the Ministry of Law and Human Rights or Communications and Information⁴⁷.

The legal position of artificial intelligence (AI) in Indonesia has yet to be specifically regulated in the current law. AI can be treated like a legal entity and have legal responsibilities in some cases with analysis, as follows: a) AI can be considered a legal subject. In this case, it means that AI can have legal rights and obligations, just like a company or an individual. As a legal subject, AI can enter into contracts and be legally responsible for actions carried out by the AI; b) AI can be regulated by laws governing technology-related matters: Some laws that can apply to AI are Law no. 11 of 2008 concerning Information and Electronic Transactions (ITE) and Law no. 19 of 2016 concerning Copyright. These two laws provide the legal basis for regulating the use of technology and intellectual property rights; c) AI can have legal responsibilities: AI that carries out actions that harm other people, such as violating Copyright or privacy, can be prosecuted legally⁴⁸.

⁴⁴ Jumentoro, Tegar Raffi Putra. Menilik Pro dan Kontra Pemanfaatan dan Penetapan Status Hukum Artificial Intelligence (AI) dalam Hukum Positif Indonesia. *Journal Of Analytical Research, Statistics And Computation*, 3(1), (2024). Hlm: 51-70. DOI: <https://doi.org/10.4590/jarsic.v3i1.28>

⁴⁵ Ravizki, Eka Nanda dan Lintang Yudhantaka, Artificial Intelligence Sebagai Subjek Hukum: Tinjauan Konseptual dan Tantangan Pengaturan di Indonesia

⁴⁶ Qurrahman, Shofika Hardiyanti, *et.al.* Kedudukan dan Konsep Pertanggungjawaban Artificial Intelegence Dalam Hukum Positif Indonesia. *Unes Law Review*, 6(4), (2024). Hlm: 12687-12693. DOI: <https://doi.org/10.31933/unesrev.v6i4>

⁴⁷ Jaya, Febri dan Wilton Goh, Analisis Yuridis Terhadap Kedudukan Kecerdasan Buatan Atau Artificial Intelligence Sebagai Subjek Hukum Pada Hukum Positif Indonesia.

⁴⁸ Siburian, Martahan. Tantangan Dan Peluang Mobil Dengan Kecerdasan Buatan Di Era Society 5.0. *Jurnal Pena*

In some cases, AI may be held accountable according to the role or function it fulfills. However, clear regulations are still needed to determine how AI can be held legally accountable.

In General, the legal position of AI in Indonesia still requires more precise and more detailed regulations. However, as an increasingly important legal and technological subject, AI may be regulated by existing laws and have legal responsibilities in some cases. Based on the explanation, thorough preparation is needed so that the Government also regulates AI. It is important to anticipate the negative impacts of AI that have reached the superintelligence stage.

Urgency of Cyber Crime Reform

General Review on the Use of Information Technology and Criminal Law Policy

The use of information technology can be more optimal and provide maximum benefits for society, not the opposite, namely, bringing disaster to humanity. Regulations regarding the use of information technology are expected in Law Number 11 of 2008, which was updated by Law Number 19 of 2016 and then most recently updated by Law Number 1 of 2024. Indonesian society must be distinct from the world information society, where communities influence and are influenced by each other. Influence on the field of information technology itself, as well as influence on the fields of politics, human rights, law, social affairs, culture, and also crime.

The development and progress of information technology are very rapid, often beyond predictions of the progress achieved. Of course, this results in changes in life activities in various sectors and also influences the birth of new forms of legal action⁴⁹. Information technology also makes the world of trade more dynamic with e-commerce, so this economic activity is expected to impact increasing welfare⁵⁰.

As previously mentioned, advances in information technology have given rise to new forms of legal acts that were not previously regulated in the Criminal Code, so there needs to be progressive regulation of them. This is to anticipate that there will be no legal actions that are not contained in the regulatory regulations regarding cyber, even though the consequences are detrimental to many parties.

The cyber-world is a virtual construction created by information technology, especially the computer and internet fields, which contain the following⁵¹: first, self-actualization, which is provided by social media with its various types of applications. The

Hukum, 2(1), (2023). Hlm: 84-88. <https://openjournal.unpam.ac.id/index.php/JPH/article/view/38415>

⁴⁹ Harahap, Arsianun dan Mia Nabillah. Human And Development Technology In The Modern Era. *International Journal of Students Education*, 1(1), (2023). Hlm: 55-58. DOI: <https://doi.org/10.62966/ijose.v1i1.73>

⁵⁰ Tuarita, Lutpi dan Eko Soponyono. The Implementation Law of Concerning Electronic Information and Transactions in Indonesia as a Political Crime Committed by the State. *International Journal of Social Science Research and Review*, 6(8), (2023). Hlm: 55-58. DOI: <https://doi.org/10.47814/ijssrr.v6i8.1540>

⁵¹ Budhijanto, Danrivanto. *Revolusi Cyberlaw Indonesia: Pembaruan Dan Revisi UU ITE 2016* (Bandung: Refika Aditama, 2017), 15.

offer of self-actualization and self-existence is open and free to anyone who uses it. Second, a forum for exchanging ideas is also an offer where everyone and anywhere, with reasonably simple equipment in the form of cellphones, tablets, and computers connected to the internet, can share ideas. The exchange of ideas is not only local but international across national borders. Third, the means of democracy, where all people are equal (have the same position). Everything can be included in the data system and computer network. Each other has no attachment to each other with physical realities.

Some things must also be watched out for due to developments that are so fast and widespread without limits, namely activities in the cyber world which have characteristics including: easy, this means that anyone can efficiently operate it because it is so popular with information technology users. It is made to be easily used. Second, widespread distribution means that the spread through the cyber world knows no boundaries; as long as the device used is connected to the internet, the spread can quickly be done automatically. This distribution does not recognize territory or national boundaries. The third character can be constructive or destructive; on the one hand, this character is positive, and on the other hand, it is negative. The means of utilizing information technology can quickly provide benefits, but on the other hand, if misused, it can also easily be used to commit various kinds of crimes.

Several problems can arise in interactions using information technology when using the internet, both civil and criminal issues, including Issues of domain use, crimes using computers, use of digital data in cyberspace activities, internet piracy, consumer protection in e-commerce transactions, e-commerce taxes, legal forms of legal relations, protection of personal rights regarding privacy, choice of law and also choice of jurisdiction. Decisions regarding the regulation of the cyber world (cyberspace) involve a debate about what legal policy will be used, whether it will involve civil law or criminal law. This debate arises because what happens in the cyber world is so complex, with various problems. For example, in the field of e-commerce, isn't this a civil issue when information technology users are involved in e-commerce with each other, which in this interaction is certainly possible, just like in the real world, namely the possibility of e-commerce disputes also occurring. There are acts of achievement and one-achievement, there are acts of breaking promises, and there are acts of not having good faith toward each other. There are also contracts with each other, agreements, and transactions.

This part focuses on criminal law policies in the world of cyberspace. Criminal law policy, also known as criminal law politics, has a role in encouraging the benefits of advances in information technology and anticipating misuse of advances in information technology. Sudarto, in this case, emphasized and warned that in terms of involving criminal law, which will be used to overcome the negative aspects of societal development, including in the context of crime prevention, it would be better if it was also seen in the overall relationship of criminal politics or social defense. The following assertion is that this policy is an integral

part of the national development plan⁵².

Sudarto gives meaning in its implementation that if legal regulations are to be updated regarding the regulation of cybercrime, lawmakers must pay attention to legal and non-legal factors comprehensively⁵³. Legal regulations regarding cyber crime must of course contain various matters including copyright, trademarks, slander or defamation, privacy, duty of care, criminal liability, procedural issues, electronic contracts, digital signatures, electronic government, pornography, theft, and also artificial intelligence.

Several factors are very important before updating cybercrime laws, including: 1) Evaluation of Cyber Crime Legal Regulations: In evaluating cyber crime legal regulations, four things must be seen, namely legal subjects, criminal acts, criminal responsibility and criminal sanctions. The legal subject of the existing regulations is Law Number 11 of 2008, which was amended by Law Number 19 of 2016 and amended again by Law Number 1 of 2024. The regulated legal subjects already contain two, namely individual legal subjects. And the subject of corporate law. Personal legal subjects are regulated in criminal acts as regulated in articles 27 to 37 in Law Number 1 of 2024.

Meanwhile, corporations as legal subjects are regulated in Article 52 in paragraph 4, where it is stated, "In the case of criminal acts as intended in Article 27 to Article 37, if the corporation commits the crime, it is punished with the principal penalty plus two-thirds. Regulations in the Electronic Information Law do not yet regulate artificial intelligence as a legal subject and also criminal procedural law if AI is a legal subject; 2) Development of Criminal Acts in the Cyber World: Reforming criminal law in cyber law must, of course, look at developments in criminal acts that may be committed in cyberspace. Accelerated developments in utilizing information technology will usually also be followed by developments in crime models committed using information technology. Several examples can be presented to show the development of criminal acts in the cyber world with vast levels of losses. Theft of personal data Large companies dominate with a massive level of loss, as experienced by the Yahoo Company, which occurred in 2013 and 2014, namely the theft of 1 billion personal accounts; in 2017, the personal data of almost more than 150 American citizens was stolen. Crimes against property are also growing at an extraordinary rate, such as cybersquatting crimes. Cybersquatting is an act carried out by a speculator to register a domain name before another party, namely the party who will actually use the domain name. Many core crimes occur abroad, and they may spread to Indonesia as well. Crimes in Indonesia that are busy are issues of defamation, decency, fake news, fraud, account hijacking, and cyberbullying, but rarely are crimes related to wealth. Cases related to cybersquatting often attack large and transnational companies, such as the Microsoft Corporation case, the Motorola case, the Penvision case, the McDonald's Corporation case,

⁵² Arief, Barda Nawawi. *Kebijakan Hukum Pidana : Perkembangan Penyusunan Konsep KUHP Baru* (Jakarta, 2011), 6.

⁵³ Akub, M Syukri. Pengaturan Tindak Pidana Mayantara (Cyber Crime) Dalam Sistem Hukum Indonesia. *Al-Ishlah: Jurnal Ilmiah Hukum*, 21(2), (2018). Hlm: 85-93. DOI: <https://doi.org/10.56087/aijih.v21i2.19>

and so on. Policy regulations on the use of information technology should focus on protecting assets and intellectual property rights (IPR).

CONCLUSION

In conclusion, the development of AI has now entered the realm of law, where AI can be considered as a legal subject equivalent to a legal entity. Although Indonesian law does not explicitly mention AI, existing laws can still be applied to regulate AI. Legal liability for AI's actions needs to be appropriately studied. Although AI has the same legal subject position as legal entities, the liability for legal acts committed by AI must be clear and have legal certainty. Such liability should be imposed on AI users as well as legal entities whose responsible person is the director of the company or the chairman of the foundation. However, the person responsible for AI is not only limited to AI users. There are still important parties that should be considered, namely the creator. Recognizing AI as a legal subject requires clear regulations to determine its legal rights and obligations. AI creators must also be responsible for the actions of the AI they create. The legal position of AI in Indonesia requires more detailed regulations to govern the legal status and responsibilities of AI. The urgency of updating cybercrime laws is critical to ensure that legal regulations keep up with the rapid development of information technology while protecting against misuse and cybercrime. Factors underlying cybercrime law reform include evaluating existing regulations, considering the development of cyber crimes, and focusing on asset protection and intellectual property rights. Thorough preparation and comprehensive legal considerations are necessary for the government to regulate AI and address cybercrime effectively.

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