

## The Urgency of Artificial Intelligence Criminal Responsibility as Cybercriminals

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### ABSTRACT

The development of information technology at this time has created many changes in life in society, the presence of artificial intelligence (A.I) in the midst of human life activities has provided many benefits both in aspects, so that today's society is very dependent on A.I which is considered very helpful in its work. Of course it can be seen that A.I also does the same thing as humans and has a positive impact and a negative impact on human life, where every aspect has a great impact on human life. The formulation of the problem in this study is the regulation of the use of artificial intelligence in Indonesia at this time and the Urgency of Criminal Responsibility of *Artificial Intelligence* as Perpetrators of Cybercrime. This research belongs to the normative legal research type. and the nature of this research is descriptive analysis. The results of the discussion in this study found that the A.I Regulation at this time is not specifically regulated by the law on A.I, but is regulated in the ITE law, namely in article 1 number 8 concerning electronic agents, where electronic agents are interpreted as A.I by analogy with the meaning of the word "automatic", then the next discussion is about the criminal responsibility of artificial intelligence as cyber criminals is a very important study for The lack of discussion on the use of A.I in Indonesian state regulations raises concerns in the public about the increasing potential for violations of the law and crime by these entities

## INTRODUCTION

The rapid development of technology greatly affects human life. The development of technology provides various conveniences in finding and providing information to the public. The history of the use of a system began in 1950 there was an expert in the field of mathematics named *Alan Turing* who became a pioneer in designing a system called *Artificial Intelligence*. *Artificial Intelligence* continues to develop along with the development of the era of human life so that its creators have a goal that *Artificial Intelligence* can provide benefits for human life. The working pattern of *Artificial Intelligence* systems refers to the simulation of human intelligence which is further duplicated into machines designed to think like humans and mimic human actions. Behind the ease of the existence of *Artificial Intelligence* that has a positive impact, there are also cyber crimes that have a negative impact on human life. Cybercrime is a serious challenge to society and dangerous for the individual or organization that is victimized. Cybercrime can also harm individuals, organizations, and governments, although on the one hand it provides great benefits in terms of efficiency and effectiveness, but on the one hand cybercrime is also increasing. Cybercrime has increased from time to time, and in 2022 it has increased significantly compared to 2021, which is up to 14 times more. Data in the e-MP Robinopsnal Bareskrim Polri shows that the police cracked down on 8,831 cybercrime cases from January 1 to December 22, 2022. All work units at the National Police and Regional Police in Indonesia took action against the case. Polda Metro Jaya became the work unit with the highest number of prosecutions against cyber crime cases, namely 3,709 cases. Meanwhile, in the same period in 2021, the number of crackdowns was 612 throughout Indonesia. Only 26 task forces carried out the crackdown.

This is the impact of very rapid and dynamic technological developments. Regulations that address cyber crime in Indonesia are spread across several laws and regulations, but these regulations are considered unable to meet the needs of domestic laws that regulate matters related to cyber crime whose development is very dynamic, especially in the face of the latest legal issues such as legal certainty against Artificial Intelligence-based crimes (hereinafter referred to as A.I). Furthermore, these regulations have not been codified properly so that it is enough to confuse the public and law enforcement officials in carrying out their duties. Based on the description above, the author is interested in studying the **Urgency of Criminal Responsibility of *Artificial Intelligence* as a Perpetrator of Cybercrime.**

## **THEORETICAL REVIEW**

### **Criminal Liability Theory**

The terms "liability" and "responsibility" have specific and distinct connotations. "Responsibility," on the other hand, has a broader scope that not only includes legal responsibilities but also moral or ethical responsibilities. This term is related to the ability to manage, make decisions, or perform tasks and duties. In the context of politics or organizations, responsibility also involves being accountable for actions and decisions made. "Liability" refers to the legal obligations that an individual or entity must fulfil as a result of their actions or negligence. Liability encompasses concrete legal aspects, such as the requirement to pay damages or face punishment for wrongdoing or crimes. In practical terms, "liability" is often associated with legal responsibility for mistakes made, while "responsibility" emphasizes social or moral obligations as well as compliance with laws and policies.

The principle of legality in criminal law is fundamental in determining an individual's accountability for violations or criminal acts committed. The principle of legality states that a person can only be punished if their actions clearly violate existing laws. No punishment can be imposed for actions that have not been specifically regulated or prohibited by the law. The principle of legality ensures that the application of criminal penalties is carried out fairly and in accordance with applicable laws. In criminal law, it is important to use clear legal text and avoid figurative terms to prevent varied interpretations. Criminal laws are not applied retroactively, meaning individuals cannot be punished for actions taken before the law was enacted. The principle of legality ensures that a person can only be punished if their action clearly violates existing law and that laws do not retroactively apply to past actions, ensuring fair and accurate law enforcement.

The difficulty of determining criminal liability in cyber crimes using A.I can be seen in legal regulations in Indonesia that have not explicitly regulated crimes using A.I, so that criminal answers for perpetrators of crimes using A.I are difficult for law enforcement officials to take action due to the absence or unclarity of a regulation.

### **Theory of Legal Certainty**

The theory of legal certainty means that with the law everyone knows which and how much his rights and obligations are and the theory of "legal expediency", which is the creation of order and peace in people's lives, because of the existence of orderly law (*rechtsorde*). The theory of legal certainty states two important things: first, the existence of general rules that enable individuals to know what actions are allowed and not allowed. Second, this theory also includes legal guarantees that protect individuals from arbitrary actions by the government. With such rules, individuals can understand what actions the state can take against them. Legal certainty also includes consistency in judicial decisions, where judges' decisions must be consistent between one case and other similar cases that have been decided. The theory of legal certainty asserts that the duty of law guarantees legal certainty in social relations. There is certainty reached "by law". In that task, two other tasks are concluded, namely the law must ensure justice and the law must remain useful. As a result, sometimes the

fair ones are forced to be sacrificed for the useful. There are 2 (two) kinds of definitions of "legal certainty", namely certainty due to law and certainty in or from law. Certainty in law is achieved if the law is as many laws as possible and that in that law there are no conflicting provisions, the law is made on the basis of "*rechtswerkelijkheid*" (legal reality) and in that law there can be terms that can be interpreted differently. According to Gustav Radbruch, the law must contain 3 (three) identity values, which are as follows:

1. The principle of legal certainty (*rechtmatigheid*). This principle is viewed from a juridical angle.
2. The principle of legal justice (*gerechtigheit*). This principle is viewed from a philosophical point of view, where justice is equal rights for all people before the court.
3. The principle of legal expediency (*zwechmatigheid* or *doelmatigheid* or *utility*). The goal of law that is close to realistic is legal certainty and legal expediency.

Legal certainty is needed in dealing with cyber crime using A.I, which at this time the regulation is unclear and only implicitly stated in the definition of "electronic agent" in the ITE Law and its amendments, Article 1 number 8 of Law 19/2016 states that an electronic agent is a device of an electronic system that is made to perform an action on a certain electronic information automatically held by people. However, the substance is limited to the discussion of actions by legal subjects that consciously cause chaos in an electronic system. Therefore, a definite provision is needed regarding the regulation of cyber crime using A.I in the context of legal certainty in Indonesia.

## METHODOLOGY

This research belongs to the normative legal research type, and the nature of this research is descriptive analysis. This research uses various sources, such as, books, laws, *websites* related to the Urgency of Criminal Responsibility of *Artificial Intelligence* as Perpetrators of Cybercrime. Then the author draws conclusions from each source and makes it a good scientific work.

This research was conducted using the method of normative juridical approach (*legal research*), or can also be called doctrinal research, which uses or suggests data sources in the form of laws and regulations, court decisions, legal theories and concepts and the views of legal scholars whose results are analyzed in a normative-qualitative way.

The main focus of normative legal research is doctriner legal research, also called library research or document studies, while the approaches used are statutory approach (*statute approach*), conceptual approach (*conceptual approach*), historical approach (*historical approach*), case approach (*case approach*) and comparative approach (*comparative approach*).

## RESULTS

### Regulation of the Use of Artificial Intelligence in Indonesia Today

Artificial Intelligence (A.I) is a technology in the field of computer science that simulates human intelligence into machines (computers) to solve various problems and work as and as well as humans do.

Cybercrime using A.I is a legal phenomenon that must be watched out for, such as the Deepfake Porn crime which is one of the crimes using A.I which is very dangerous. Deepfakes are engineering technologies or synthetic techniques of human imagery based on artificial intelligence ("AI"). Then, Marissa Koopman (et.al) explained deepfakes as follows:

*"The Deepfake algorithm allows a user to switch the face of one actor in a video with the face of a different actor in a photorealistic manner".*

That is, deepfake is a term given to algorithms, where the algorithm allows users to change the face of one actor to the face of another actor in a photorealistic video that mimics a real visual object. In addition to video, deepfake technology can also be used to engineer images. Then, deepfake technology is often misused so that it can cause crimes such as the use of deepfake technology in spreading pornographic content.

The development of artificial intelligence (AI) has touched almost all aspects of human life. There have been many AI programs that can facilitate human work, ranging from translator applications, virtual assistants, to art-producing applications.

However, the use of AI also has the potential to violate a number of aspects related to privacy, personal data, and intellectual property rights. To address this issue, a number of countries are developing various regulatory models to regulate the development and utilization of AI. The UK puts forward a concept that is claimed to be pro-innovation with the aim that existing regulations support AI innovation and not hinder it. The law is essentially an objective order of virtue and general justice. The law serves as an order that protects the common good as well as the self-interest. Law grows naturally in society, where the law always changes along with social changes. With such a Savigny question, the laws in one country cannot be applied / used by other countries because the people are different, as well as the culture in a region is certainly different, in terms of place and time is also different. The theory of legal certainty means that with the law everyone knows which and how much his rights and obligations are and the theory of "legal expediency", which is the creation of order and peace in people's lives, because of the existence of orderly law (rechtsorde). The theory of legal certainty asserts that the duty of law guarantees legal certainty in social relations.

While the United States (US) as one of the leading countries in AI development actually does not have special regulations related to this. However, on October 30, 2023, US President Joe Biden issued an Executive Order on Safe, Secure, and Trustworthy Artificial Intelligence which contains a number of standards in the development and utilization of AI.

The European Union, for example, on December 9, 2023, through the Council and Parliament of the European Union, has approved the final draft of the EU AI Act – a hard law-based AI regulation that applies horizontally and is

one size fits all for all sectors that involve AI technology in their business activities.

To this day, Indonesia does not have any specific regulations related to AI. In 2020, the Indonesian government released the Indonesian National Strategy for Artificial Intelligence (Stranas KA) which contains AI ethics and policies, AI talent development, and data ecosystem and AI development infrastructure. However, Stranas AI is not a binding legal document, but only a national policy direction.

However, that does not mean the Indonesian government is absent in regulating AI technology. There are a number of regulations related to the use of AI technology in Indonesia, for example Permenkominfo Number 3 of 2021 which regulates licensing aspects for business actors who utilize AI.

There is also the ITE Law and its derivative regulations that regulate AI with electronic agent terminology. There is a Personal Data Protection Law that regulates the use of AI which concerns the processing of personal data. In addition, the Ministry of Communication and Information Technology (Kemenkominfo) has also issued ethical guidelines for the use of AI for business actors as stated in the Circular Letter of the Minister of Communication and Information Number 9 of 2023 concerning Ethics of Artificial Intelligence.

Efforts to regulate the use of AI have also been carried out by the Financial Services Authority (OJK). OJK appointed the Indonesian Financial Technology Association (AFTECH) together with other industry associations namely AFSL, AFPI and ALUDI to compile and establish a Responsible and Trusted Artificial Intelligence (AI) Code of Ethics Guide in the Financial Technology Industry which was launched in early December 2023. In addition, OJK is also drafting regulations on digital services by commercial banks which contain the principle of responsible innovation in the use of new technology, one of which is AI technology.

Despite these efforts, Indonesia still needs regulations that specifically target AI technology so that its use can be done responsibly while creating a good ecosystem for the development of AI technology.

At the moment Indonesia does not have a Law on Artificial Intelligence (A.I), as in European countries with the EU A.I Law, the A.I Law is the first proposed European regulation on artificial intelligence (A.I) the first comprehensive regulation on A.I issued by a major regulator anywhere. The law stipulates the application of A.I into three risk categories, namely:

1. Apps and systems that pose unacceptable risks, such as government-conducted social assessments such as those used in China, are prohibited.
2. High-risk applications, such as CV scanners that rank job applicants, are subject to certain legal requirements.
3. Apps that aren't explicitly banned or listed as high-risk apps are largely unregulated.

The regulation of A.I at this time is not specifically regulated by the Law on A.I, but is regulated in the ITE Law, namely in article 1 number 8 concerning electronic agents, where electronic agents are interpreted as A.I by analogy with the meaning of the word "automatic" in the article, of course this has a very

narrow and limited meaning because there can be multiple interpretations in understanding it. Save the author needs an idea of clear and clear laws and regulations in dealing with A.I, so as to make it easier for electronic users / consumers and law enforcement officials to understand and implement regulations about A.I.

### **The Urgency of Artificial Intelligence Criminal Responsibility as Cybercriminals**

Artificial Intelligence (A.I) has a very broad scope and implementation, even tends to be biased because several sources have their own opinions. However, the definition of A.I can be summarized into 2 main concepts, which are as follows:

1. A.I is all that computers can't do, but will be able to someday (because they're always learning).
2. A.I is intelligence demonstrated by machines.

Intelligence is the ability to acquire and apply knowledge and skills. Humans develop machines (read: computers) to gain knowledge efficiently because machines can search / process information faster than humans (very basic example: calculators). However, machines cannot do things initiatively, humans must give 'what to do and how to do it' to machines in order to work. The greater hope is that humans provide a little 'knowledge', then machines can learn from that knowledge and develop themselves. True AI needs to be able to learn, machines can learn by doing Machine Learning (ML) concepts.

ML's focus is on gaining insights so it can make data-driven decisions, ML uses data to answer questions. For some cases, ML can be so complex that additional methods are needed so that machines can mimic the workings of the human brain or called Deep Learning. In general, people develop machine learning so that it can be used to solve certain cases called data scientists.

The emergence of machines with artificial intelligence certainly has disruptive effects on various social orders of society. This is certainly a challenge in the era of the industrial revolution 5.0 society, then what if a machine can think, decide, and act of its own accord, shouldn't the machine also be recognized as an entity. This is closely related to the concept of the subject of law broadly.

Conceptually, the more intelligent a system is, the more likely it is to take actions that cause legal consequences. So, if this intelligent system has the capacity to act and think like humans, does that mean that the system must also have legal rights and protections like humans?

Based on the popular A.I book written by Stuart Russell and Peter Norvig, in determining the rank or classification of A.I, you can consider the following taxonomy:

1. Systems that think like humans,
2. Systems that act like humans,
3. Systems that think rationally, and
4. Systems that act rationally.

So it can be said that A.I can resemble humans both in thought and action, because of this, later if there are legal problems related to A.I then this will be a serious problem, of course the question of how criminal responsibility A.I as a cyber crime perpetrator becomes a very important question.

The current Indonesian legal regulations regarding A.I can actually be analyzed in the Civil Code (KUHPer). The Code indirectly provides an option that AI can be analogous to a worker. This can be seen in the relationship between workers and employers regulated in Article 1367 paragraphs (1) and (3) of the Civil Code which states as follows:

*"(1) A person shall not only be liable for damages caused by his own actions, but also for damages caused by the acts of persons for whom he is responsible or caused by goods under his control."*

*"(3) Masters and persons who appoint others to represent their affairs are liable for losses incurred by their servants or subordinates in performing the work for which these persons are used"*.

Based on these arrangements, we can analogize AI as workers by looking at the characteristics of "workers" inherent in AI systems. The application and use of AI in everyday life also helps what humans can actually do, which makes the impression of AI more attached to workers. Responsibility in criminal law or also called Criminal Responsibility which means: "a person who has committed a criminal act does not mean he must be convicted, he must be held accountable for his actions that have been committed". Being accountable for an act means to determine whether the perpetrator is guilty or not. Thus, if AI is analogous to a worker, then responsibility for negligence / fault from AI can be imposed on the owner of AI as the "employer". Also, keep in mind that if the AI is a worker, it has a legal relationship with the employer. Of course, he is also responsible to his employer if he breaks the law. AI assessed as workers can also be independently responsible. But in practice this is very difficult, so it still requires humans to be responsible.

In addition to analogizing AI as a worker, there is also the possibility that AI is analogous to an animal. It solely sees the resemblance between animals and AI as entities that can move and behave events autonomously. In this case, the KUHPer regulates if the animal causes harm then the owner will be responsible. This is mentioned in Article 1368 of the Civil Code which states that:

*"The owner of the animal, or whoever wears it, during the time the animal is in his possession, is responsible for any harm caused by the animal, whether the animal is under his care or the animal is lost or escaped his care"*.

Thus, if A.I is analogized as an animal, then if AI commits actions that violate the law or harm other parties, then everything caused by the actions by A.I will be borne by the owner or the person who runs the A.I. However, the analogy that A.I can be equated with animals is a long debate that remains to be studied more deeply from its philosophical and theoretical sides.

In its development, experts believe that AI will have a higher sense ability and is predicted to surpass human intelligence. Current technology is also considered capable of creating AI that can understand various aspects of independence and intelligence. Technology can also broaden philosophical views related to AI independence. Previously, AI was considered self-sufficient as long as AI could do its work based on previously implemented programs. Today, however, AI is much more self-sufficient than that. AI can set its own goals and targets and choose how best to achieve those goals and targets.

The emergence of machines / robots with AI has caused a disruptive effect on society. AI systems differ from other ordinary computer algorithms (programs) because of their uniqueness. AIs can learn autonomously, gather experience and come up with different solutions based on the analysis of various situations independently of the will of their developers (programmers), i.e. can operate autonomously rather than automatically.

Conceptually, the more intelligent a system is, the more likely it is to perform actions that give rise to legal consequences. For example, the emergence of smart cars with complex AI technology that can drive themselves without human control. That is, the consequences arising from the act of driving the car are no longer the result of human actions, but may be the result of the contribution of the smart car deeds. Therefore, when a smart car hits a person who is crossing the road and causes the person to be injured, can the car be held criminally liable? On the other hand, if these intelligent systems have the capacity to act and think like humans, does that mean they should also have legal rights and protections like humans?

Criminal law aims to prevent the occurrence of harm and moral wrongdoing from behavior prohibited by crime. The moral direction given by the criminal law makes the perpetrator morally punishable and subject to the threat of criminal sanctions. The race to create complex AI or perhaps super-intelligent artificial beings challenges criminal law, as human control is one of the key essentials when holding someone accountable for crimes. When complex AI acts autonomously, human control over complex AI diminishes and creates problems in determining its accountability. In another sense, the complex characteristics of AI will collide with the requirements for establishing accountability.

Explained in "Article 1 Number 1 of Law 19/2016" it can be interpreted that Artificial Intelligence is only limited to an object of law and does not view Artificial Intelligence as a subject of law, namely:

1. Delivery
2. Recipient
3. Person
4. Enterprises
5. Government.

In Point 3, the consideration section of Law 19/2016 also opens up space for Law 19/2016 to make changes or adapt and keep up with the times to new forms of legal acts. Theoretically, the legal subjects who can make legal acts or legal acts and legal subjects contained in positive law in Indonesia are "human (natuurlijke person)" and "legal entity (rechts person)" However, according to Salmond,

*"So far as legal theory is concerne, a person is being whom the law regard as capable of rights and duties. Any being that is so capable is a person even though he be a man".*

It can be said that the subject of the law has a human or non-human capacity that has been determined by law. According to him, in the days of slavery man was not seen as a subject of law or person by the law itself. Whereas, non-human beings determined by law can be viewed by legal subjects. Especially in criminal liability in Indonesia seen from various problems arising from other countries can, Based on Newzoo data, reported by dataindonesia.id, Indonesia is fourth on

this list. There were 192.15 million smartphone users in the country throughout last year. this can lead to many opportunities for crime caused by Artificial Intelligence through Malware. Legal responsibility for actions through Artificial Intelligence needs to be studied properly.

The lack of discussion about the use of AI in Indonesian state regulations raises concerns in the public about the increasing potential for violations of the law and crime by these entities. Therefore, further analysis is needed regarding the elaboration of AI according to Indonesian law, the concept of AI criminal responsibility, AI legal protection, and comparison between laws in Indonesia and laws in other parts of the world in discussing and regulating the existence of AI.

In general, Law Number 28 of 2014 concerning Copyright or abbreviated as UUHC categorizes AI as a computer program and is defined as a direction or command expressed through a code, language, scheme to various other forms to make an electronic device capable of performing special functions or achieving specific results. While Law Number 19 of 2016 concerning Electronic Information and Transactions or ITE Law, only describes AI as an "Electronic Agent", which is a device in the Digital System designed to be able to execute an action on certain electronic information automatically and managed by the individual concerned.

As stated in the ITE Law, Government Regulation of the Republic of Indonesia Number 71 of 2019 concerning the Implementation of Electronic Systems and Transactions, also categorizes AI as an "Electronic Agent". Based on these three rules, it can be understood that until now, the policies and rules that apply in Indonesia still have not specifically discussed and regulated firmly about the existence of AI. Both the Copyright Law and the Information and Technology Law still categorize AI as a general technology object, while the Government Regulation related to the Implementation of Electronic Systems and Transactions only discusses digital systems and transactions related to Electronic Agents.

Although basically, the ITE Law can be implemented on an unlawful action related to AI technology. However, the substance is limited to the discussion of actions by legal subjects that consciously cause chaos in an electronic system. This indicates a vacuum in regulation in Indonesia because there is no law that explicitly regulates crimes "committed" by AI and criminal liability. The term "done" here refers to situations where an AI entity engages in adverse actions due to its inability to understand human commands, errors in the system, or due to internal damage to the artificial intelligence.

## **CONCLUSIONS AND RECOMMENDATIONS**

### **Conclusion**

1. The regulation of A.I at this time is not specifically regulated by the Law on A.I, but is regulated in the ITE Law, namely in article 1 number 8 concerning electronic agents, where electronic agents are interpreted as A.I by analogy with the meaning of the word "automatic" in the article, of course this has a very narrow and limited meaning because there can be multiple interpretations in understanding it.
2. Criminal Responsibility of Artificial Intelligence as a Perpetrator of Cyber Crime is a very important study to be carried out in the development of law in Indonesia, especially cyber crime, The lack of discussion about the use of A.I in Indonesian state regulations raises concerns in the public about the increasing potential for violations of law and crime by these entities. Therefore, further analysis is needed regarding the elaboration of A.I according to Indonesian law, the concept of AI criminal responsibility, A.I legal protection, and comparison between Indonesian law and laws in other parts of the world in discussing and regulating the existence of A.I.

### **Recommendation**

1. It needs a firm and clear idea of laws and regulations in dealing with A.I, so as to make it easier for electronic users/consumers and law enforcement officials to understand and implement regulations on A.I.
2. The criminal responsibility of A.I as a perpetrator of cyber crime is a very crucial problem in the era of disruption, so it is necessary to make a legal breakthrough on how A.I as a legal subject can be held accountable for his actions.

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