


Criminal Law Accountability in the Application of Artificial Intelligence in the Digital Era

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| Article Info | ABSTRACT |
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| <p>Keywords: Accountability, Criminal Law, Artificial Intelligence, Digital Era.</p> | <p>The development of technology and artificial intelligence (AI) has changed the social, economic and legal landscape significantly, especially in the context of the digital era. Artificial intelligence is now an integral part of various aspects of life, including the legal system. However, along with this progress, serious questions also arise regarding criminal law liability in the application of artificial intelligence. This research aims to analyze the dynamics of criminal legal liability that arise in the context of the application of artificial intelligence in the digital era. The research method used is normative legal analysis and literature study. The research results show that in the context of criminal liability related to the use of AI, there are complexities that must be considered carefully. Although AI may be able to carry out unlawful actions or decisions, it does not have the same consciousness or intent as humans. Therefore, in determining the criminal liability of AI, it is necessary to carefully consider how AI can be regulated and held responsible in a legal context. The importance of involving various stakeholders from various fields in discussing and forming regulations related to the use of AI is also a crucial point found in the results of this research.</p> |
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INTRODUCTION

As time goes by, the role of technology increasingly expands the dimensions of human life. Especially in the digital era, where automation and interconnection are increasingly widespread, artificial intelligence (AI) technology has become one of the main innovations that changes the way we interact with the world (Jaya & Goh, 2021). AI, in its essence, is a branch of computer science that aims to create intelligent machines capable of performing complex tasks like humans, or even surpassing human capabilities in some aspects (Dwipangestu et al, 2024).

One of the key factors that enables the development of AI is big data and algorithms. Big data provides the ability to store and analyze large volumes of data, which becomes the fuel for AI systems to learn and make decisions (Ayunda & Rusdianto, 2021). By providing rich data sources, big data allows AI to discover patterns, trends, and correlations that may not be visible to humans. Additionally, algorithms form the backbone of AI functioning, enabling it to interpret and use that data in meaningful ways. Algorithms are used to

identify patterns in data, predict future behavior based on existing patterns, and make decisions automatically (Wachid & Wardah Yuspin, 2023).

AI has experienced massive development in various fields of human life, including medicine, business, finance, education, law and manufacturing (Yudoprakoso, 2019). The use of AI technology is no longer limited to certain sectors, but has penetrated almost all aspects of daily life. For example, in the medical field, AI is used to diagnose diseases, predict treatment outcomes, and interpret medical examination results with high accuracy. In the business world, AI is used to analyze market trends, predict consumer behavior, and optimize company operations (Sihombing & Syaputra, 2020).

One of the clearest examples of AI integration in everyday life is through virtual assistants such as Google Assistant and Siri. Google Assistant, which can be found on almost all smartphones, provides easy access to information and carrying out certain tasks just by using voice (Purnomo, 2023). Likewise, Siri, the personal assistant introduced by Apple Inc., is able to understand human language and provide relevant responses according to user requests. Whether in finding information, managing schedules, or running certain applications, virtual assistants have become an inseparable part of modern digital life (Kusumawati, 2008).

The developments in AI that have been described have a significant impact on criminal liability in the legal system (Priowirjanto, 2022). This phenomenon reflects the challenges faced by law in keeping up with the pace of technological innovation, in accordance with the adage "het recht hink achter de feiten aan" which describes how law often lags behind developments over time. In Indonesia (Rahardjo et al, 2018), there are no regulations that specifically regulate AI, thus raising a number of questions that need to be studied further. The concept of traditional legal subjects is usually related to human individuals or legal entities, but with increasingly sophisticated artificial intelligence, questions arise about the possibility of granting legal status to non-human entities such as AI (Samsithawrati, 2023).

Legal regulations related to AI technology in Indonesia are reflected in Law Number 19 of 2016 which is an amendment to Law Number 11 of 2008 concerning Information and Electronic Transactions (ITE) (Anggriani & Arifin, 2019). In the law, AI is identified as part of electronic systems and electronic agents. Article 1 number 5 Law no. 19 of 2016 defines an electronic system as a series of electronic devices and procedures that function to prepare, collect, process, analyze, store, display, announce, transmit and/or disseminate electronic information (Disemadi, 2021).

Article 1 number 6a Law no. 19 of 2016 states "Electronic System Operator is any person, state administrator, business entity, and community who provides, manages, and/or operates an Electronic System, either individually or jointly to users of the Electronic System for their own and/or personal needs. or other people's needs." Electronic system operators are responsible as legal subjects for the implementation of electronic systems, one of which is AI (Nurhidayati et al, 2022; Lukito, 2017).

Meanwhile, Article 1 number 8 of Law no. 18 of 2016 explains an electronic agent as a device from an electronic system that is created to carry out certain actions on electronic

information automatically which are regulated by people (Barkatullah, 2019). Thus, the placement of AI under the categories of electronic systems and electronic agents shows the Indonesian government's efforts to accommodate the existence and role of AI technology in the legal realm, even though it has not specifically regulated AI as a legal subject that has clear legal responsibilities (Ridwansyah, 2021).

This research aims to explore a deeper understanding of the dynamics of criminal law accountability in the context of the application of artificial intelligence in the digital era. Through this research, it is hoped that the challenges that arise in determining legal responsibility for actions carried out by AI can be identified, as well as the legal implications in the context of rapid technological change. The benefit of this research is that it provides a more comprehensive view to stakeholders , including policy makers, legal practitioners, and the general public, in developing a regulatory framework that is appropriate to developments in AI technology and addresses the legal challenges that arise in its application in the criminal legal system.

METHOD

This research adopts normative legal research methods, which rely on secondary data, especially primary legal materials. This data is obtained through documentary studies or literature studies, where information is obtained from legal materials that are relevant to the research topic (. The data analysis technique used is qualitative analysis, which allows researchers to explore the meanings and concepts that emerge from the legal materials analyzed. Objectives The main focus of this research, as stated by Tan (2021), includes predictions, where this research is expected to provide an overview of possible outcomes that might occur. Apart from that, this research also aims to provide an in-depth description of the findings obtained. , as well as to draw strong and scientifically reliable conclusions. Thus, this research approach is expected to make a significant contribution to the understanding of criminal legal responsibility in the context of the application of artificial intelligence in the digital era.

RESULTS AND DISCUSSION

In Indonesia, the applicable subjects of criminal law include individuals and corporations (business entities), in accordance with the provisions contained in the Information and Electronic Transactions Law (UU ITE). However, in the context of the application of artificial intelligence (AI) as an electronic system and electronic agent, the role of legal subjects in carrying out orders to AI is an important concern. According to the ITE Law, orders to AI are usually given by Electronic System Operators (PSE), which can be individuals, state officials, business entities, or society as a whole. In this context, the PSE is responsible for the commands given to the AI and the actions resulting from those commands.

It should be noted that, although AI can be considered a “tool” programmed to perform certain tasks, the implications of the actions carried out by AI must still be considered within the legal framework. For example, if AI commits criminal acts such as privacy violations or fraud, questions about legal liability arise. In this case, the Electronic

System Operator as the legal subject who gives orders to AI, may be the main consideration in determining legal responsibility for this action. Therefore, regulations that are clear and responsive to the dynamics of AI technology are very important to ensure fair and effective law enforcement in this digital era.

There are two main criteria for declaring something a legal subject, namely its ability to carry out legal acts and its ability to assume rights and obligations. First, in the context of the ability to carry out legal actions, let's assume an AI system that has the ability to analyze information and make decisions independently, similar to human intelligence. Virtually, the results of the AI system's actions are difficult to differentiate from actions carried out by humans. In criminal law, the concept of artificial legal subjects is also nothing new. For example, the legal subject of legal entities (*rechtspersoon*) in criminal law is often used as an analogy for AI systems, because basically the actions of these artificial legal subjects are still influenced or carried out by humans.

However, it should be noted that although AI may have the ability to act autonomously and make complex decisions, its existence and operation is still completely dependent on humans developing, programming and managing the system. Therefore, in the context of criminal law liability, consideration of the human role behind the operation of AI systems remains crucial. This leads us to understand that while AI may be considered a "subject of law" in the broadest sense, responsibility will still ultimately fall on the humans responsible for the use and management of the AI technology.

From the perspective of criminal liability, it is important to understand the concepts of criminal acts and mistakes. Criminal acts refer to actions that are prohibited by law and threatened with certain criminal sanctions. On the other hand, the error aspect of criminal liability is based on the principle of *actus non facit reum nisi mens sit rea*, which briefly describes that there is no criminal act without an accompanying subjective error. This error includes the existence of a certain psychological state (*mens rea*) and the relationship between that psychological state and the act committed.

However, in the context of non-human entities such as AI, challenging questions arise regarding error assessment. How can we know or judge the inner intentions of a non-human entity like AI? While AI may be capable of making complex decisions and actions, the ability to understand or judge inner intentions remains an unsolved challenge. This highlights the complexity of determining criminal liability in the context of AI, where it is necessary to approach carefully and consider ethical, technical and legal aspects together.

Therefore, it is important to recognize that while AI may have the ability to process information, reason, and make decisions, it cannot be considered to have independent capabilities in a legal context. AI is a product of human creation and organization, operating according to a predetermined program and data provided to it. AI's ability to think and act depends entirely on the instructions it has been given by humans during its development process. Therefore, in terms of criminal liability, AI cannot be equated with other legal subjects who have the ability to act independently. Responsibility for actions carried out by AI remains with humans who are responsible for the use and management of AI technology.

This approach reflects the need for a careful and comprehensive approach in regulating the use and development of AI technology, especially in the context of criminal law. While AI has great potential to increase efficiency and provide benefits in various fields, including law, it is important to recognize that the adoption of this technology also brings new challenges that need to be handled wisely. Clear and responsive regulation is needed to ensure that the application of AI technology in the legal realm occurs fairly and responsibly, and that appropriate legal liability is imposed in cases where AI actions are involved.

Van Hamel stated that criminal responsibility involves three main abilities possessed by legal subjects. First, legal subjects must be able to truly understand the meaning and consequences of their actions. This means that legal subjects must have an adequate understanding of the consequences of the actions they take, both in a legal and moral context. Second, legal subjects must be able to realize that their actions are contrary to the norms that apply in society. This includes awareness of the moral values, ethics, and legal rules that govern individual behavior in society. Third, legal subjects must also be able to determine their own will in carrying out these actions. This means that legal subjects have autonomy and control over the actions they take, and are not forced or influenced externally to act. Thus, the concept of criminal responsibility requires awareness, understanding and control over actions carried out by legal subjects.

However, in the context of applying this concept to non-human entities such as AI, challenges arise in assessing the ability of AI to meet these criteria. While AI may be able to process information quickly and accurately, it remains an open question whether AI has a comparable understanding to humans about the meaning and consequences of its actions. In addition, whether AI can truly realize that its actions are contrary to societal norms and have autonomous control over the decisions it makes is still a complex debate. Therefore, in considering the criminal liability of AI, it is important to pay attention to the AI's ability to meet these criteria as well as how it relates to the technical, ethical, and legal aspects involved.

When we relate the concept of criminal liability to the existence of AI, it needs to be acknowledged that AI has significant limitations in fulfilling the criteria set out by Van Hamel. First, AI does not have the ability to truly understand the meaning and consequences of its actions like humans. Although AI can process data quickly and accurately, AI's understanding is limited to processing information according to pre-programmed algorithms and logic, without having an emotional or moral understanding of the impact of its actions.

Furthermore, AI also does not have the ability to determine its own will to carry out an action. AI operates based on programs and instructions set by humans, without having the ability to develop or determine its own will autonomously. Thus, in the context of criminal liability, the concept of will or intention, which is an important aspect of criminal liability, cannot be applied to AI in the same way as to humans.

Lastly, AI also does not have awareness like humans when carrying out legal actions. The awareness referred to here includes understanding and recognition of the social and

legal norms that regulate human behavior in society. While AI may be able to be programmed to obey certain rules, this is only a response to preset commands, not the result of understanding or awareness of legal norms. Therefore, in assessing AI's criminal liability, it is necessary to recognize that these limitations require a different approach in the context of criminal law.

In the context of criminal liability related to the use of AI, it should be noted that AI as a non-human entity does not have the ability to realize or know the legal consequences of its actions. As stated by Simons, perpetrators of criminal acts must have the awareness and ability to determine their will regarding their actions. However, in the case of AI, the resulting decisions or actions are not based on awareness or knowledge of legal norms, but rather on commands and logic that have been programmed into the system by its human creators.

Therefore, in situations where AI commits unlawful actions or actions, responsibility must be traced back to the creators and users of the AI itself. The AI creator is responsible for the design, development, and programming of the AI, which directly influences the behavior and decisions made by the AI. On the other hand, AI users also have a responsibility to ensure that AI is used in accordance with applicable legal norms. They must be responsible for the selection and use of AI in appropriate contexts, as well as ensuring that actions generated by AI do not violate the law.

If an AI commits a criminal act that harms another party, then the error, whether intentional or negligent, can be traced back to the AI user. AI users have an obligation to ensure that AI is used responsibly and in accordance with applicable legal provisions. Therefore, in determining criminal liability related to AI actions, it is important to consider the roles and responsibilities of AI creators and users in its use. This includes recognition of the possible risks and legal consequences associated with the use of AI technology, as well as the implementation of appropriate precautions and oversight to reduce the risk of legal violations that may arise.

Technological innovation and the presence of AI have brought major changes in various aspects of human life, including in the field of work. AI provides the potential to increase efficiency, accuracy and productivity in a variety of areas, from business process automation to the development of advanced medical solutions. However, when discussing the possibility of applying criminal liability to AI, we must face complex and profound challenges. Looking at this description, an argument emerges that the legal subject of criminal liability is not only limited to humans (natural persons) and legal entities (recht persons), but can also include AI as a new entity. This is due to indications that AI may have the ability to fulfill the basic elements of criminal liability, namely *actus reus* (unlawful action) and *mens rea* (intentional or negligent).

In the context of AI, *actus reus* can be realized through actions or decisions generated by AI that violate the law, such as invasion of privacy, discrimination, or manipulation of information. On the other hand, although AI does not have consciousness or intentions like humans, it can be programmed to process information, draw conclusions, and make decisions based on the data given to it. This creates the argument that in some cases, AI

may be considered to have a form of mens rea, albeit in a different context to humans. However, in recognizing AI as a legal subject of criminal liability, many aspects need to be considered carefully. This includes a deep understanding of how AI operates, AI's ability to understand and comply with legal norms, as well as the regulatory framework necessary to govern the responsible use and development of AI technology. Thus, applying criminal liability to AI requires a comprehensive and collaborative discourse, involving various stakeholders from various fields, including law, technology, ethics and the general public.

CONCLUSION

Consideration of criminal liability in the context of the use of AI is complex and requires in-depth discourse. Although AI has made a major contribution to increasing efficiency and innovation in various sectors, including AI as a legal subject for criminal liability presents significant challenges. First, while AI may have the ability to break the law in its actions or resulting decisions, it does not have human-like consciousness or intent. However, arguments are emerging that AI may be able to fulfill basic elements of criminal liability, such as actus reus and mens rea, albeit in a different context to humans. Second, it is necessary to carefully consider how AI can be regulated and held accountable in a legal context. This includes a deep understanding of how AI operates, AI's ability to understand and comply with legal norms, as well as the development of the regulatory framework necessary to address such complexities. In this case, it is important to involve various stakeholders from various fields, including law, technology, ethics and the general public, in discussions and the formation of regulations regarding the use of AI. A holistic and collaborative approach is needed to ensure that the application of criminal liability to AI is carried out fairly, transparently and effectively, and is able to minimize the risk of legal violations that may arise in the use of this technology.

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