

CRIMINAL LIABILITY FOR MISUSE OF ARTIFICIAL INTELLIGENCE (AI) IN DEEPFAKE CRIMES

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ABSTRACT

Artificial Intelligence (AI) has brought significant innovations in various fields, but it has also created new challenges in the realm of criminal law. One of the negative implications of AI is its misuse in the deepfakes crimes, a media manipulation technology that can create video, audio, or image content that appears authentic but is fake. Crimes involving deepfakes can include blackmail, spreading fake news, defamation, and privacy violations. This paper discusses the criminal liability for the use of AI in deepfake crimes, highlighting relevant legal aspects, including who can be held liable, the AI creator, the technology user, or other related parties. This article examines the criminal liability of AI used to commit deepfake abuse. This study analyzes existing regulations, including the Electronic Information and Transactions Law (UU ITE), as well as the role of law enforcement agencies in combating deepfake crimes. In addition, this study also identifies challenges faced in the law enforcement process, such as limited resources, lack of coordination between agencies, and gaps in understanding technology among law enforcement officers. The results of the study show that there is a legal and regulatory vacuum governing Artificial Intelligence and Deepfake Crimes, although there are regulations on Information and Electronic Transactions (ITE) but they have not been able to resolve the problem of deepfake crimes that are increasingly occurring in Indonesia. significant progress in the legal framework and policies related to cyber crime, there are still many obstacles that reduce the effectiveness of law enforcement. Therefore, efforts are needed to strengthen the ongoing regulatory side to strengthen the capacity of law enforcement institutions, increase international cooperation, and update regulations to be in line with technological developments. Thus, it is hoped that law enforcement against deepfake crimes that utilize artificial intelligence in electronic transactions in Indonesia can be more optimal in protecting the public from misuse of AI and deepfake crimes..

Keywords: Criminal Liability, Artificial Intelligence, Deepfake Crimes.

INTRODUCTION

Human civilization in this era has entered the industrial revolution 4.0. The era of the industrial revolution 4.0 is characterized by the entry of technology into the industrial world. The industrial revolution 4.0 is a development of the previous industrial revolution, starting with the discovery of the steam engine by James Watt in 1784 as the originator of the first industrial revolution. The next stage, the second industrial revolution was marked by the discovery of electricity in 1870. Entering the end of the 20th century, computer technology was discovered and developed and is known as the third industrial revolution.

The era of the industrial revolution 4.0 is also marked by the presence of artificial intelligence (henceforth referred to as AI). AI is a term to refer to the simulation of human intelligence and thought processes by machines connected to a sea of data and information. These machines are built with capacities and intelligence that resemble human intelligence. AI

is a technology that can be used by humans as a tool to support activities carried out by humans themselves. Functionally, AI has more or less the same function as a robot, but AI comes in a different appearance in the form of a computer system that is displayed in visual form. So AI can also be referred to as the brain of a robot.

In its development, AI underwent three stages of evolution. The first is Artificial Narrow Intelligence (ANI), known as Weak AI. Next there is Artificial General Intelligence (AGI), which is called Strong AI and has the ability to be equal to humans. Finally, there is Artificial Super Intelligence (ASI), which is a form of AI designed to exceed human capabilities. The current evolution of AI is still at the Weak AI stage. One example is the use of AI technology in the automotive industry, such as driverless cars equipped with an autopilot feature, which allows cars to operate automatically without a driver. In addition, AI has also helped and replaced many human tasks in daily life, such as Google Translate which can translate various languages quickly, without the need to use a dictionary to translate many languages around the world.

The impact of AI in human life is not only limited to the ease of work, but also goes further than that. It can profoundly change human lifestyle and habits. In its development, AI has touched various sectors of human activity, including the legal field. Since 2017, China has utilized AI technology as a judge in digital cases. However, this use is still limited and will continue to grow over time. The Netherlands is also a country that utilizes AI in the legal field, by providing access to open regulations and agreements that apply in the country. Not inferior to these developed countries, Indonesia as a developing country has also begun to use AI in the legal world, including *hey*law, and *hukumonline* which have provided various features to obtain data and information related to law to assist the law enforcement process.

With the existence of AI in technological development, this cannot be separated from the legal arrangements that apply in a country. Given the technological advancement of AI, which is capable of performing human tasks, various legal issues arise regarding its actions. AI is an artificial intelligence that is limited by the code that underlies its ability to perform an action.

In Indonesia, there are no regulations that specifically and clearly regulate AI, which could certainly become a legal problem in the future if AI technology performs actions that are contrary to applicable positive law. In this case, given AI's ability to perform legal actions, AI can behave like humans, including committing criminal acts that harm other parties. One example of a criminal act utilizing AI that is currently rampant is deepfake.

This technology was first introduced by Ian Godfellow in 2014 with the initial purpose as a form of entertainment. One of the implications of deepfake technology at that time was the Face Swap application, which allowed users to swap photos of their faces with other people's faces. Subsequently, Deepfake was then misused to take photos, videos, or voices of other people on the internet without permission, and manipulated for certain purposes. Not only are the parties whose assets are used harmed, but also the people who consume the media, who can be affected by the spread of false information. Deepfake began to gain widespread attention in 2017 when it was used unethically on the Reddit platform, where users shared pornographic videos with facial manipulation technology. Deepfakes are difficult to recognize at a glance because they use real footage, making them look very convincing.

Some countries that have adopted AI technology in various fields have recognized AI as a legal subject with rights and obligations. However, this is not the case in Indonesia, where AI is not recognized as a legal subject under positive law. Therefore, it is important to explain the responsibility for legal acts committed by AI in this study, particularly from a criminal law perspective. This becomes important when dealing with AI-based criminal offenses such as deepfake.

Linked to this legal issue, the author would like to present it in an article with the title: “Criminal Liability for Misuse of Artificial Intelligence (AI) in Deepfake Crimes.”

METHODS

In conducting this research, the method used is a qualitative method, with a normative juridical approach. The type of research is library research. The data sources of this research are obtained from laws and regulations, books, journals and document studies.

RESULTS AND DISCUSSION

1. The Position of AI as a Legal Subject in Criminal Law

Regarding the position of AI in criminal law is a discussion that refers to the position of AI when committing a criminal offense, can it be called a legal subject like a person and legal entity or not? This discussion will begin with several definitions of legal subjects in the realm of civil law conveyed by several doctrines, including the following:

1. Subekti, defines a legal subject as a bearer of rights or an object in law, namely a person;
2. Soedikno Mertokusumo, defines a legal subject as everything that can obtain rights and obligations from the law. Only humans can be the subject of law;
3. Syahran, defines the subject of law as a supporter of rights and obligations;
4. Chaidir Ali, defines the subject of law as a human being with legal personality and everything that is based on the demands of the needs of society as such and by law is recognized as a supporter of rights and obligations;
5. Agra, defines the subject of law as everyone who has rights and obligations so as to have legal authority or called *Rechtsbevoegdheid*.

Meanwhile, in the realm of criminal law, there is a development of the subject of law from the original subject of law consisting only of persons (*natuurlijk persoon*) developed with the addition of legal entities (*rechtspersoon*) as legal subjects. Wirjono Prodjodikoro in his book entitled: *The Principles of Indonesian Criminal Law* says that in the view of the old Criminal Code which is currently still in effect, the subject of a criminal offense is a human being as an individual. This is evidenced by the forms of criminal sanctions contained in the old Criminal Code in the form of criminal sanctions: imprisonment, fines, curtailment, and closure.

The old Criminal Code that is currently still in effect states that only the management (directors) of the corporation can be held criminally liable (criminal liability). However, in its development, corporations can also be held legally responsible. This concept was first introduced by Law No. 32/2009 on Environmental Protection and Management.

Subsequent developments, corporations are stipulated as legal subjects for all criminal offenses by Law Number 1 of 2023 concerning the Criminal Code, which comes into force in 2026 (3 (three) years after its enactment). Article 45 paragraph (1) states that corporation is the subject of criminal offense including:

1. Legal entities such as PT, foundations, cooperatives, State-Owned Enterprises (BUMN), Regional-Owned Enterprises (BUMD), or the equivalent;
2. Associations both incorporated and unincorporated;
3. Business entities in the form of a firm, partnership, or the equivalent in accordance with the provisions of laws and regulations.

Meanwhile, the conditions for criminal acts by corporations to be held accountable can be found in the UUPPLH, namely if:

1. included in the scope of business or activities as specified in the articles of association or other provisions applicable to the corporation;
2. benefit the corporation unlawfully;
3. accepted as corporate policy;
4. the corporation does not take the necessary steps to prevent, prevent greater impacts and ensure compliance with applicable legal provisions to avoid criminal acts; and/or
5. the corporation allows the criminal offense to occur.

Legal subjects have a very important position and role in the field of law, especially civil law because legal subjects have legal authority. In some legal literature, there are two types of legal subjects, including the following:

1. Human (Natuurlijk persoon)

Every person who has the same position as a supporter of rights and obligations. In principle, the person as a legal subject starts from birth until death. Including children in the womb for more than 2 weeks are considered to have been born even though they have not yet been born, if the interests of the child require it. An example for inheritance purposes. Human (Person) can be a subject of law with the following conditions:

- A. A person who is an adult aged 21 years (Marriage Law No.1 of 1974 and Article 330 of the Civil Code).
- B. A person who is under 21 years old but has been married.
- C. A person of sound mind and sanity.

2. Legal Entity (Rechtspersoon)

According to Article 1653 of the Civil Code, a legal entity is an association of persons recognized by law or held by public authority and established for a specific purpose that is not contrary to law or morality.

According to Prof. Dr.Mr.L.J. Van Apeldoorn, what is meant by a legal entity is every human association, which acts in legal relations as if it were a single person. Meanwhile, according to E. Utrecht, a legal entity (rechtspersoon) is a body that according to the law has the power or authority to become a supporter of rights, which has no soul, or more precisely which is not human. Legal entity as a social symptom is a real symptom, a fact that is really in legal association even though it does not have a human form or objects made of iron, wood and so on.

Purnadi Purbacaraka and Soerjono Soekanto argue as follows in translating *zadelijk lichaam* into a legal entity, *lichaam* is the correct translation of the body, but the law as a translation of *zadelijk* is wrong, because the real meaning is moral. Therefore, the term *zadelijk lichaam* is nowadays synonymous with *rechtspersoon*, so it is better to use it with the translation of legal person.

AI cannot just be given rights because it is man-made, the rights and obligations of artificial intelligence are borne by the individual or legal entity that created it. The construction of rights is certainly not far from human rights, such as intellectual property rights, the right to obtain information, and so on. In terms of legal responsibility, the actions of artificial intelligence can be charged to the user and can also be charged to the legal entity that makes the artificial intelligence. The owner of artificial intelligence and artificial intelligence have a very close relationship in terms of giving birth to an authority. Given that there is no legislation product that specifically regulates the rights and obligations of artificial intelligence, an analogy can be made to regulate its rights and responsibilities. In line with the author's opinion, Atsar and Sutrisno liken the provision of legal subjects in the form of legal entities. However, they open the opportunity to give its form to a new entity.

AI does not meet these criteria. AI does not have rights and obligations like humans or legal entities. Even in the context of a legal entity, there is an authority that controls, manages, and is responsible for its actions, for example, the directors of a company. AI does not have an internal “manager” who is responsible, rather it is operated by humans or companies that control it.

In its concept as the work of a legal entity or individual, the position of artificial intelligence can be supported by an alternative interpretation of the Civil Code (KUH-Perdata) by analogizing it to a worker. The relationship between workers and employers can be seen in Article 1367 paragraph (1) and paragraph (3) of the Civil Code which states: “Paragraph (1): A person is liable not only for damages caused by his own acts, but also for damages caused by the acts of those for whom he is responsible or by goods under his supervision.” “Subsection (3): Employers and persons who appoint others to represent their affairs are liable for damages incurred by their servants or subordinates in the performance of the work for which these persons are employed.” In the view of anthropomorphism, artificial intelligence is analogous or likened to a person as a worker with the attribution of worker characteristics to it. This logic is in accordance with the view that artificial intelligence is used daily to do things that humans do.

Atsar and Sutrisno in their research in 2022 revealed that artificial intelligence is an extension of human hands as a legal subject. It (artificial intelligence) only works according to the program that has been set by humans. Therefore, humans are responsible for unexpected events that occur in the future by artificial intelligence, both in the civil, criminal and administrative domains. Furthermore, according to them, artificial intelligence does not adhere to values and ethics and conscience. In criminal law, artificial intelligence does not have inner responsibility in the form of *actus* and *mens rea* as qualifications for its actions and accountability. In terms of rights and obligations, according to them, artificial intelligence does not have what is owned by an inventor (inventor) of artificial intelligence. so that in the case of artificial intelligence it becomes (more appropriate) as an object rather than a subject of law.

2. Criminal liability for AI used to commit deepfake abuse.

Criminal responsibility is the punishment of an actor with the intention of determining whether or not a defendant or suspect is held accountable or a criminal act occurs. In Article 34 of the new Criminal Code, it is formulated that criminal responsibility continues to be an objective reproach for criminal acts based on applicable legal provisions. Subjectively to the maker who meets the requirements in the law (criminal law) to be subject to punishment for the act. While the requirements for criminal responsibility or the imposition of a penalty, there must be an element of guilt in the form of intent and negligence.

The development of artificial crime or AI gave birth to a similar technology later called deepfake. Deepfake uses generative adversarial network technology that relies on neural networks by analyzing large sets of samples to mimic human facial expressions, mannerisms, voices, and tone of voice. The term deepfake is a combination of the word deep learning, which means deep machine technology, and the word fake, which means fake. The use of facial recognition algorithms and deep learning computer networks is referred to as variational auto-encoder.

Deepfake technology is often used for the purpose of sexualizing victims. With the help of AI, deepfake is monetized by irresponsible people who provide paid editing services with a credit recharge system. Customers only need to send a photo of the victim to be edited. Deepfake video creation services are also in high demand. The cost ranges from \$300 to US\$20,000 per minute depending on the level of difficulty (Herman, 2023). It doesn't stop there, manipulated media is usually accompanied by threats to spread it. The motivation of this

intimidation is to provide a sense of terror and blackmail the victim into giving a certain amount of money as a condition not to be spread. Many people enjoy deepfake content even though they know that it is a form of sexual harassment and against the law. A now-deleted subreddit called r/deepfakes reportedly had nearly 90,000 users. The main activity of the group members was to share deepfake pornography. The internet is the main platform used for explicit content. Over the years, pornographic content has also become more varied. This makes it easy for anyone to access or upload anything indecent. Unlimited sexual preferences and fantasies also easily find a place on pornographic websites that can be accessed for free. This problem indicates a moral crisis and this easy access to pornography has had a huge negative impact because the parties harmed are numerous and not closed to anyone. This means that it is an irony that security against pornographic pages tends to be minimal. Victims of harmed pornographic content also often suffer prolonged physical and psychological harm, including sexual predation, emotional trauma, cyberbullying, and even suicidal tendencies. Sharing pornographic content is often trivialized, but restoring reputations and erasing digital footprints is difficult.

Children can access the internet easily because there are no strict age restrictions from internet page providers. The internet provides an enormous amount of information and facilitates children's curiosity, so it becomes a butterfly effect because children can be exposed to things they shouldn't be. According to a Pew Research Center survey, almost 95% of teenagers have access to the internet. The Ministry of Women's Empowerment and Child Protection (Kemen PPPA) revealed that 66.6% of boys and 62.3% of girls in Indonesia are exposed to pornographic content on the internet. The more time teenagers and children spend on the internet, the more likely they are to be accidentally exposed to explicit content, such as those in advertisements while browsing the internet. Deepfake perpetrators not only target adults, but underage children and teenagers are also easy targets, especially for people with pedophilia disorders.

Pornography is a crime that is clearly regulated by law. In Indonesia alone, Article 4 of Law Number 44/2008 on Pornography stipulates that the act of producing, making, reproducing, duplicating, disseminating, broadcasting, importing, exporting, offering, trading, renting, or providing pornography can be charged with criminal penalties. Criminal threats against the perpetrators are regulated in Article 45 of Law Number 19 of 2016 concerning Amendments to Law Number 11 of 2008 concerning Electronic Information and Transactions which reads "Every person who intentionally and without right distributes and/or transmits and/or makes accessible Electronic Information and/or Electronic Documents that have content that violates decency as referred to in Article 27 paragraph (1) shall be punished with a maximum imprisonment of 6 (six) years and/or a maximum fine of Rp1,000,000,000.00 (one billion rupiah)."

The criminal punishment given aims to provide a deterrent effect for the perpetrator and provide justice for the victim. In fact, far more people are working to develop deepfake technology than the technology to detect and remove it. Deepfake is not specifically regulated in civil or criminal law, but the constitution has adapted the law to cover defamation, identity fraud, or deepfake identity impersonation. Indonesia has several legal grounds that can be used to prosecute deepfake offenders. The legal basis that can be used is Article 48 paragraph (1) which reads "Every person who fulfills the elements as referred to in Article 32 paragraph (1) shall be punished with a maximum imprisonment of 8 (eight) years and/or a maximum fine of Rp2,000,000,000.00 (two billion rupiah)." Article 32 paragraph (1) stipulates that the act of changing, adding, reducing, transmitting, damaging, eliminating, moving, hiding Electronic Information and/or Electronic Documents belonging to another person or public is an unlawful act.

Another article that can be used is Article 68 of Law Number 27 of 2022 concerning Personal Data Protection which reads “Every person who intentionally makes false Personal Data or falsifies Personal Data with the intention of benefiting themselves or others which may result in harm to others as referred to in Article 66 shall be punished with a maximum imprisonment of 6 (six) years and/or a maximum fine of Rp6,000,000,000.00 (six billion rupiah).” The legal framework plays a vital role in regulating the creation and dissemination of deepfake content (Kumar, 2023). The increasing number of misinformation and deepfakes has also led to a decline in public trust in the authorities. Public distrust of the authorities has implications for deepfakes, which are increasingly easy to spread and consume by the public. Technological advancements are needed from cyber security to develop more sophisticated detection tools that are able to compete to identify deepfake content. It is a challenge for cyber security to overcome this problem. This challenge is compounded by people who are still less aware of personal data protection and relatively easy to consume hoax news because they are reluctant to check the validity of a media. Increasing public awareness and transparency is also an important component.

Evidence is a very crucial stage in criminal law that directly affects the running of the trial process. Without an evidentiary process and evidence, a criminal event cannot be considered valid. The judge's decision is strongly influenced by evidence that supports a crime. Article 6 paragraph (2) of Law Number 48 of 2009 concerning Judicial Power states “no one shall be sentenced to punishment unless the court, by means of valid evidence under the law, is convinced that a person who is considered liable, has been guilty of the act charged against him.” Strengthened by Article 1 Point 13 of Law Number 2 of 2002 concerning the Police which reads “investigation is a series of actions by investigators in the case and in the manner regulated in this law to seek and collect evidence with which the evidence makes light of criminal acts that occur and to find the suspect.” Photos, videos, and voice recordings can be used as important evidence needed in the investigation process.

With deepfake, these media can be faked and deliberately created to engineer events that never happened to distort the facts. The impact of incorrect evidence is that it becomes increasingly difficult to know which to believe, resulting in slowing down the trial process and even influencing the judge's decision which will be detrimental to the parties to the case. The widespread use of deepfake requires police officers to examine evidence in more depth and verify whether the evidence is authentic or not. The trial process for cybercrime cases begins with the police making a police report and calling witnesses from the owner of the internet provider used by the perpetrator, examining the crime scene to collect evidence used by the perpetrator in carrying out his actions, especially on computer devices, examining witnesses and asking for expert testimony, arresting and detaining the perpetrator to conduct a direct investigation, and finally determining the article that can be imposed to continue to the trial process. The public prosecutor needs to make an indictment followed by valid evidence and in accordance with Article 183 of the Criminal Procedure Code, at least two pieces of evidence and accompanied by the judge's conviction. Of course, what is difficult in this process is finding the perpetrator whose whereabouts and identity are difficult to trace. This phenomenon requires law enforcement to develop increasingly complex skills and legal processes. Such sophisticated technology makes it easy for perpetrators to cover their identities and digital footprints and makes it difficult for law enforcement to carry out the tracking process. Perpetrators can access the internet from any device, anywhere, with hidden identities, so the process of collecting evidence and evidence requires extra effort. Virtual Private Network (VPN) also helps perpetrators in carrying out crimes because VPN is designed to hide the IP Address identity of its users. As the saying goes "there is no perfect crime", conventional crimes always leave traces. The ease of internet access in this era has made cybercrime possible without a trace and unseen by a single witness. Therefore, law enforcement officers

not only need to improve their skills to detect deepfakes, but also invest in the ability to overcome future technological challenges (European Union Agency for Law Enforcement Cooperation, 2022).

Digital analysis and digital forensics were born as disciplines that aim to work together in combating cybercrime. The threat of AI technology and the internet requires an increase in efficient computing tools to detect and block pornographic content. Reddit and Pornhub have banned deepfake pornography and are working to follow up on any reports from users of such content. The United States has taken legal action by passing the National Defense Authorization Act (NDAA).

The law requires the US Director of National Intelligence to report on the use of deepfakes by international governments. However, this policy is considered insufficient to address the problems caused by deepfakes, as technological advances continue to accelerate and have innovations that are not necessarily legally accessible. Since its inception, only five states in the United States have passed laws regarding deepfake technology.

Starting in 2019, the states of Texas and California banned the use of deepfakes to influence upcoming elections. California and Virginia also passed laws in the same year to prohibit the creation and distribution of consensual deepfake pornography. A year later, New York passed a law establishing the right to take legal action against the publication of unlawful deepfakes. Bills to regulate AI have also been proposed and passed in several states in 2022.

CONCLUSIONS

- A. Artificial Intelligence (AI) cannot be qualified as a legal subject in criminal law and is more precisely referred to as an object. The actions carried out by AI are commands originating from AI users, in this case humans, which are sent via code or descriptors so that the actions of the AI are not conscious actions like those carried out by humans.
- B. The lack of regulation and the widespread spread of crime not only threaten popular figures, but have the potential to endanger anyone. Media that has been uploaded to the internet can be accessed by anyone, so that photos, videos, and voices of anyone spread on the internet can be used as deepfake targets. Its impact on privacy and personal security is definitely an effect of cybercrime that must be monitored. If not dealt with firmly, deepfake crimes with their rapid development can destroy someone's life through the spread of incorrect information. Therefore, internet technology is basically controlled by humans and cannot be designated as a legal subject. Violations committed by AI are the full responsibility of the person operating it.

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